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# FISHERY COMMODITY SITUATION AND OUTLOOK 1980/81

by

Fish Utilization and Marketing Service
Fishery Industries Division
Fisheries Department

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Abstract

This paper comprises a first examination of significant developments in world fish production and trade in important fishery commodities in 1980, as well as an assessment of emerging trends during 1981. Information available in April 1981 was utilized, supplemented by an industry inquiry in which fish producing, processing and trading companies worldwide provided their views of developments during 1980 and expectations for 1981.

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# EXECUTIVE SUMMARY

## WORLD FISH CATCHES IN 1980

*Declined almost one million tons, exceeding only slightly the production of 1976. -Landings in developed countries down fourth year in succession, those in western Europe for the third consecutive year. Only the U.S.A., Denmark, Italy, the Netherlands, Ireland, Spain and New Zealand reported increases. Sharpest declines in the Federal Republic of Germany, the U.K., Iceland, Norway and the U.S.S.R. Japan virtually unchanged. - Landings in developing nations also down, lead by decreased production in Africa and Latin America; that in Asia virtually unchanged. Most significant reductions reported in Nigeria, Tanzania, Namibia, Peru, Argentina, India, the Republic of Korea and Thailand. Heavier landings in Mexico, Chile, Uruguay, Indonesia, Philippines and China. - Producers worldwide suffered the effects of spiralling costs, notably fuel and finance charges, and stagnant or declining product prices.*

## INTERNATIONAL TRADE IN 1980

*Growth in world fish trade slowed significantly, affected by unfavourable economic conditions in key markets - notably the U.S.A. and Japan, high interest charges and unstable currency exchange rates. - Canada remained the leading exporter despite decline. The U.S.A., still a close second, also reported a contraction in the value of exports. Norwegian, Danish, Icelandic, Dutch and Japanese export values all up. That of the Republic of Korea down moderately. Mexico and Chile joined the top ten exporters, replacing Peru and the U.S.S.R., but failed to prevent overall erosion of export performance by developing countries. - Japan again topped importer's league, but reported U.S.$800 million drop in import bill. U.S.A. second with slight increase. All large western European importers - especially Spain, and Hong Kong reported significant increases in imports. Imports by developing countries, up 7 percent in value, became more important.*

## FISHERY COMMODITY SITUATION 1980 AND OUTLOOK 1981

***Frozen whitefish** : Supplies generally adequate in the face of contracting U.S.A. market - down over 7 percent - and sluggish market in western Europe. Heavier supplies from most major exporters compensated for declines in Norway and Greenland; lower landings in the U.K. and the Federal Republic of Germany necessitated more dependence on imports. Cod and haddock products in ample supply, but those of flatfish and Alaska pollack were tight. Industry crisis in Argentina reduced hake product supplies. Competition for new material between frozen and cured fish producers in Iceland and Norway heightened. But prices generally soft in all major markets, putting most fishermen and producers in a squeeze between rising costs and stagnant product prices.*

*Demand remains weak, but expected to strengthen enough to support moderate price increases in 1981. Supplies should be adequate for most products, including cod and haddock, but tight for Alaska pollack and possibly hake. Speed and degree of recovery in Argentina a key element for hake supplies. Increasing costs, growing protectionism, and pervasive atmosphere of uncertainty - due to a major degree to lack of agreement on EEC common fishery policy - will generate strong upward pressure on prices among suppliers, particularly in western Europe. The question is the absorption capacity of the still weak market.*

***Frozen tuna** : Supply situation improved in the major producing countries, reducing import demand in U.S.A. and Japan. Imports increased in western Europe. Supplies from most developing producer/exporter nations along the Eastern Pacific, except Mexico, declined last year.*

*In 1981 tuna landings will increase as the boom in tuna boat orders which began in 1979 continued in 1980 and early 1981, especially in the U.S.A., Mexico, Costa Rica, Panama and France. Japanese fleet size will probably contract. The U.S.A. embargo of tuna and tuna products from Mexico, Ecuador, Peru and Costa Rica may well cause problems for exporters in these nations.*

***Frozen shrimp :*** *Imports and prices down significantly in U.S.A. and Japan, accompanied by heavy draw-down on stocks. Prices generally weak in western Europe, but imports increased significantly in France, the U.K., Spain and other countries. - Rising costs and declining product prices created problems for shrimp producers in many countries. Reduced Indian exports in the face of weak market and continuing quality problems in the U.S.A. and Japanese markets.*

*Brighter outlook for 1981, especially the U.S.A. and Japan. Prices still weak but firming. Japanese and U.S.A. imports up during first two months of the year. Moderately higher prices expected in most major markets.*

***Frozen cephalopods :*** *Sharp increase in domestic landings and heavy carry-over stocks resulted in significant decline in Japanese imports and prices for frozen squid. Frozen octopus imports up slightly, but prices down very significantly. Frozen cuttlefish prices averaged slightly higher. - Imports of frozen cephalopods by both Spain and Italy increased substantially. Prices averaged higher, especially in Italy. - Many developing countries now active in frozen cephalopod export market.*

*Over-supply problem persisted for frozen squid in Japan in early 1981, and import demand recovery will be slow this year. - Frozen squid prices in Italy also still weak, but frozen cuttlefish prices showing some strength.*

***Frozen mackerel :*** *Reduced mackerel landings in western Europe and Peru. Frozen mackerel exports from western Europe to West Africa apparently increased in spite of higher prices as market remained buoyant. Peruvian exports to western Europe probably down.*

*Resurgence in importance of Latin American supplies expected in 1981 as landings in western Europe should decline again.*

***Frozen African diverse fish :*** *Trade levels and prices increased as West African market remained strong. Uruguay and Argentina increased exports of frozen croaker to West Africa. - Outlook for 1981 looks favourable.*

***Frozen pilchard :*** *Exports to western Europe from Peru almost certainly declined with 16 percent drop in pilchard landings in Peru. Prices increased during latter half of 1980. - Outlook for 1981 may improve despite reduced catch quotas for pilchard in Peru; all pilchard landings must now go into food fish industry.*

***Frozen herring :*** *Slight increase in supplies in western Europe, accompanied by some moderation in prices. - Continuation of this trend expected in 1981.*

***Rainbow trout :*** *Ample supplies and growing consumer acceptance during 1980. - Supplies should increase again in 1981 as producer interest in rainbow trout is increasing.*

***Frozen lobster :*** *Prices stagnant and imports down significantly for warm-water tails in the U.S.A. Japanese imports also declined 20 percent. - Outlook for 1981 depends on economic developments in the U.S.A. and Japan.*

***Frozen crabs :*** *Japanese imports dropped 17 percent as prices fell sharply mid-year. Some recovery experienced later in the year. Imports into the U.S.A. remained small but increased during first three quarters of 1980; prices down after early year strength due to heavy landings. - Some prospect for recovery of Japanese prices and import demand during 1981.*

***Canned tuna :*** *Raw material picture improved measurably with heavier landings in main producing countries. Favourable market in U.S.A. and most western European consuming nations. - Many developing nations pushing ahead with development of their tuna canning industries.*

*Market outlook in 1981 good in U.S.A. and western Europe if raw material shortages do not again intervene.*

***Canned pilchard :*** *World export supplies of canned sardine/pilchard were about the same level as 1979, but prices rose as market remained strong. Japanese exports increased sharply, and shipments from Chile and Ecuador expanded. Those from Spain and Peru declined. - The large markets in the developing world are expected to become even more important during 1981.*

***Canned mackerel :*** *World trade increased last year with 16 percent expansion of Japanese exports. Chilean and Danish exports also rose. Prices for Japanese products increased significantly. - As with canned sardine/pilchard, large markets in developing world are expected to continue growing in importance during 1981. Outlook for increased sales in the U.K. and the Federal Republic of Germany also looks favourable.*

***Canned herring :*** *Improved raw material supplies assisted markets in western Europe somewhat. But canned mackerel now estimated to command about 15 percent of the traditional canned herring market in the Federal Republic of Germany.*

***Cured fish :*** *World trade expanded, with significant increases in Canadian, Icelandic, Faroe and Danish exports. Norwegian exports declined. Prices generally increased for both salted and dried fish products. - The West African market for stockfish remained buoyant into 1981, but markets for salted fish were showing some signs of price resistance.*

***Fish meal :*** *World production and export supplies declined, pushing up prices in western Europe. Increased supplies from Denmark, Chile and U.S.A. did not compensate for sharp reductions in Peru and Norway. - Prices currently weak but some recovery expected in latter half of 1981 as world production and export supplies should again decline this year.*

***Fish oil :*** *World production contracted 10 percent, but heavy carry-over stocks supplemented export supplies. - Prices fluctuated widely during 1980, but are expected to average moderately higher in 1981. No significant change in world output anticipated this year, and carry-over inventories were at reduced levels at the beginning of 1981.*

## GENERAL OUTLOOK 1981

*World fish catch is not expected to change materially from the level of 1980, despite increased fishing effort and growing aquaculture production. Heavier production is foreseen being limited to nations rich in fish resources: such as Canada, U.S.A., New Zealand, Australia, Mexico, Uruguay, Nigeria, Ghana and Burma. The latter five countries will add significant catch capacity to their national fleets this year. Peru and Norway are expected to again witness a reduction in landings. Excess fleet capacity is a growing problem in western Europe and Japan, and can be expected to spur further interest in the Indian Ocean and Western Pacific and accelerate the movement towards joint-venture arrangements.*

*World trade in seafood products is foreseen expanding more than 1980, aided by moderate recovery of the two leading import markets - Japan and the U.S.A. It will be constrained by the still tentative nature of economic and demand recovery, high interest rates, and the unpredictable fluctuation of exchange rates. Further, the world fish catching and marketing structure is still struggling to adjust to the new requirements necessitated by the new regime of the sea. The difficulty of this adjustment, compounded by unfavourable market conditions last year, has loosed - especially in western Europe - forces inimical to the interests of fish exporting nations, particularly in the developing world.*

*Price increases for fishery products in 1981 should outpace those of last year, and recover somewhat for selected high-value products, such as shrimp and lobster. Strong upward pressure on prices will be evident among suppliers, but the key question will be the absorptive capacity of important markets.*

*FAO began operation during 1981 of "The Market Information and Advisory Service for Fish Products in the Asian/Pacific Region (INFOFISH)", with headquarters in Kuala Lumpur, Malaysia.*

## INTRODUCTION

Presented in this report is an initial review of developments in the world fish industry in 1980, and an assessment of evolving trends during 1981. World fish production and trade in fishery products are examined, as are developments in the world's main fishery commodity markets. This review and assessment is based on information available through April 1981. Statistical data for 1980 are thus largely of a preliminary nature and may be subject to future revision. Official and trade information sources were supplemented by information derived from an industry inquiry in which fish-producing, processing and trading companies worldwide provided their views of developments during 1980 and expectations for 1981 with respect to specific seafood markets.

It is hoped that this report will assist industry and government planning efforts and contribute to informed fish production and marketing decisions.

## WORLD FISH PRODUCTION IN 1980

After two years of marginal expansion, 1980 witnessed an almost one million t drop in world fish catches, the largest such decline in recent years (Table 1). In comparing these data with previously reported fish production statistics, however, it should be noted that catches of all aquatic mammals - whales, seals, porpoises and dolphins - and the production of all aquatic plants are now excluded from all data provided in Table 1.1/

Both groupings of nations - developing countries and developed countries - registered declines in total fish catches in 1980. Total fish catches by developing countries as a group decreased more than 700 000 t after an impressive growth in production during the preceding two-year period of nearly 9 percent. Developed nations as a group recorded a decline in total fish production of a quarter of a million t in 1980 - a continuation of the downtrend in catches by these countries which commenced in 1977 - but still accounted for over 52 percent of total world catches during 1980. Developing nations as a group accounted for slightly more than 47 percent of total world catches in 1980, about the same proportion of the total as in the previous year, but still up from their 45 percent contribution of 1977.

Among developing countries, the sharpest declines in catches (on a percentage basis) were recorded in Africa, where aggregate production fell over 300 000 t. Latin America registered a more than 400 000 t reduction in catches in 1980 as compared to 1979, while production in Asia was virtually unchanged from last year. Developing Asian nations accounted for over half of the total catches by developing countries again in 1980.

Heavier landings in China (+2 percent), Indonesia (up almost 5 percent), Malaysia (+10 percent), and the Philippines (+2 percent), balanced reported declines in Thailand (-4 percent), the Republic of Korea (-3 percent), and India (-6 percent), leaving total production in developing Asian nations at the same level as compared to 1979. Thai catches fell 66 000 t in 1980, the third consecutive year of decline and a continuation of the process of adjustment by the industry to the expiration of fishing rights in the EEZs of neighbouring countries and the depletion of stocks in the Gulf of Thailand. A 40 percent increase in catches of crustaceans accounted for the bulk of the sharp rise in total production in Malaysia, while lower crustacean catches are thought to be an important factor in the reported 143 000 t decline in total Indian production. Expanded inland water production boosted Chinese total catches as marine production was deliberately reduced to conserve important stocks. Philippine production resumed its growth during 1980 after two years of stagnation.

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1/ This reflects new FAO data compilation practices instituted during 1980. Prior to 1980, catches of porpoise and dolphins and the production of aquatic plants were included in most world, regional and national fish production compilations published by FAO

Table 1

FISHERY PRODUCTS: WORLD CATCH OF AQUATIC ORGANISMS[a/]

| | Average 1970-73 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980[b/] prelim. | Change 1979-80 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 000 t | | | | | % |
| WORLD TOTAL | 64 200 | 66 592 | 66 479 | 69 863 | 69 164 | 70 544 | 71 253 | 70 292 | - 1.3 |
| Developed countries | 34 386 | 36 736 | 37 178 | 38 575 | 37 982 | 37 432 | 37 323 | 37 097 | - 0.6 |
| North America: | 4 022 | 3 821 | 3 835 | 4 152 | 4 216 | 4 783 | 4 843 | 4 850 | - |
| Canada | 1 212 | 974 | 993 | 1 102 | 1 235 | 1 366 | 1 332 | 1 260 | - 5 |
| United States | 2 810 | 2 847 | 2 842 | 3 050 | 2 980 | 3 418 | 3 511 | 3 590 | + 2 |
| Western Europe: | 11 073 | 11 295 | 10 989 | 12 030 | 12 078 | 11 440 | 11 134 | 11 089 | - |
| EEC: | 4 635 | 5 121 | 4 856 | 5 023 | 4 810 | 4 844 | 4 623 | 4 800 | + 4 |
| Denmark | 1 384 | 1 835 | 1 767 | 1 912 | 1 806 | 1 740 | 1 738 | 2 000 | +15 |
| France | 772 | 793 | 784 | 787 | 744 | 777 | 732 | 700 | - 4 |
| Germany, Fed.Rep.of | 505 | 526 | 442 | 454 | 432 | 412 | 356 | 315 | -12 |
| Italy | 406 | 426 | 406 | 420 | 380 | 402 | 427 | 457 | + 7 |
| Netherlands | 329 | 326 | 351 | 285 | 313 | 324 | 324 | 328 | + 1 |
| United Kingdom | 1 099 | 1 079 | 969 | 1 026 | 997 | 1 030 | 905 | 817 | -10 |
| Others | 140 | 136 | 137 | 139 | 139 | 158 | 140 | 183 | +31 |
| Portugal | 456 | 430 | 375 | 346 | 310 | 255 | 242 | 260 | + 7 |
| Spain | 1 530 | 1 498 | 1 512 | 1 469 | 1 389 | 1 373 | 1 205 | 1 250 | + 4 |
| Iceland | 762 | 945 | 995 | 986 | 1 374 | 1 567 | 1 645 | 1 510 | - 8 |
| Norway | 2 985 | 2 579 | 2 481 | 3 361 | 3 402 | 2 587 | 2 650 | 2 417 | - 9 |
| Others[c/] | 705 | 722 | 770 | 845 | 793 | 814 | 769 | 792 | + 3 |
| Eastern Europe and USSR: | 8 829 | 10 596 | 11 493 | 11 509 | 10 562 | 9 977 | 10 259 | 10 118 | - 1 |
| Poland | 528 | 679 | 801 | 750 | 655 | 571 | 601 | 640 | + 6 |
| USSR | 7 735 | 9 256 | 9 970 | 10 132 | 9 351 | 8 915 | 9 114 | 8 910 | - 2 |
| Others | 566 | 661 | 722 | 627 | 556 | 491 | 547 | 568 | + 4 |
| Oceania: | 176 | 203 | 172 | 187 | 210 | 223 | 237 | 237 | - |
| Australia[d/] | 114 | 134 | 109 | 110 | 128 | 123 | 127 | 120 | - 6 |
| New Zealand | 62 | 69 | 64 | 76 | 83 | 100 | 110 | 117 | + 6 |
| Other developed countries: | 10 286 | 10 821 | 10 687 | 10 697 | 10 915 | 11 010 | 10 852 | 10 862 | - |
| Japan | 9 497 | 10 101 | 9 895 | 9 994 | 10 123 | 10 184 | 9 966 | 10 000 | - |
| South Africa | 597 | 592 | 600 | 595 | 550 | 600 | 659 | 635 | - 4 |
| Israel | 27 | 24 | 24 | 26 | 24 | 26 | 27 | ... | - |
| Others | 165 | 104 | 168 | 82 | 218 | 200 | ... | ... | - |
| Developing countries | 29 814 | 29 856 | 29 302 | 31 288 | 31 181 | 33 112 | 33 930 | 33 195 | - 2.2 |
| Africa: | 3 618 | 4 025 | 3 700 | 3 533 | 3 533 | 3 634 | 3 526 | 3 219 | - 9 |
| Morocco | 278 | 285 | 224 | 281 | 255 | 287 | 280 | ... | - |
| Ghana | 228 | 220 | 255 | 238 | 268 | 264 | 230 | ... | - |
| Nigeria | 385 | 473 | 466 | 497 | 504 | 519 | 535 | 451 | -16 |
| Senegal | 259 | 357 | 363 | 362 | 348 | 359 | 308 | ... | - |
| Tanzania | 173 | 171 | 196 | 239 | 288 | 295 | 344 | 240 | -30 |
| Namibia | 634 | 840 | 761 | 574 | 404 | 418 | 327 | 211 | -35 |
| Others | 1 661 | 1 679 | 1 435 | 1 342 | 1 466 | 1 492 | 1 502 | 1 499 | - |
| Latin America: | 10 462 | 7 447 | 6 604 | 8 201 | 6 818 | 8 736 | 10 028 | 9 579 | - 4 |
| Mexico | 407 | 402 | 468 | 526 | 611 | 703 | 875 | 1 252 | +43 |
| Chile | 1 036 | 1 128 | 899 | 1 379 | 1 319 | 1 929 | 2 633 | 2 817 | + 7 |
| Ecuador | 115 | 174 | 222 | 298 | 434 | 617 | 644 | ... | - |
| Peru | 7 530 | 4 145 | 3 448 | 4 344 | 2 537 | 3 369 | 3 682 | 2 709 | -26 |
| Argentina | 224 | 277 | 211 | 266 | 370 | 519 | 566 | 390 | -31 |
| Brazil | 602 | 726 | 753 | 653 | 748 | 803 | 843 | 850 | + 1 |
| Uruguay | 17 | 16 | 26 | 34 | 48 | 74 | 108 | 130 | +20 |
| Others | 531 | 579 | 577 | 701 | 751 | 722 | 677 | 787 | +16 |
| Near East (Africa and Asia): | 737 | 873 | 843 | 813 | 820 | 789 | 771 | ... | - |
| Asia: | 14 225 | 16 688 | 17 260 | 17 790 | 19 025 | 18 891 | 18 492 | 18 493 | - |
| Southern Asia: | 2 908 | 3 418 | 3 440 | 3 377 | 3 585 | 3 425 | 3 487 | 3 361 | - 4 |
| India | 1 801 | 2 255 | 2 266 | 2 174 | 2 312 | 2 306 | 2 343 | 2 200 | - 6 |
| Others | 1 107 | 1 163 | 1 174 | 1 203 | 1 273 | 1 119 | 1 144 | 1 161 | + 1 |
| East and Southeast Asia: | 6 106 | 7 057 | 7 424 | 7 874 | 8 688 | 8 757 | 8 586 | 8 632 | + 1 |
| Indonesia | 1 249 | 1 333 | 1 382 | 1 479 | 1 568 | 1 642 | 1 732 | 1 814 | + 5 |
| Korea, Rep. of | 1 089 | 1 688 | 1 887 | 2 118 | 2 085 | 2 091 | 2 162 | 2 090 | - 3 |
| Malaysia | 378 | 525 | 474 | 517 | 619 | 685 | 698 | 765 | +10 |
| Philippines | 1 167 | 1 371 | 1 443 | 1 393 | 1 508 | 1 495 | 1 476 | 1 507 | + 2 |
| Thailand | 1 597 | 1 516 | 1 553 | 1 659 | 2 188 | 2 095 | 1 716 | 1 650 | - 4 |
| Others | 626 | 624 | 685 | 708 | 720 | 749 | 802 | 806 | - |
| Centrally planned economies: | 5 211 | 6 213 | 6 396 | 6 539 | 6 752 | 6 709 | 6 419 | 6 500 | + 1 |
| China | 3 482 | 4 134 | 4 247 | 4 320 | 4 463 | 4 394 | 4 054 | 4 135 | + 2 |
| Others | 1 729 | 2 079 | 2 149 | 2 219 | 2 289 | 2 315 | 2 365 | ... | - |
| Other developing countries | 772 | 823 | 895 | 951 | 985 | 1 063 | 1 113 | 1 133 | + 2 |

a/ Excluding all aquatic mammals and aquatic plants. See page 1

b/ Including estimates (1979 data repeated) for countries for which 1980 data are not yet available

c/ Including Greece

d/ Data available on fiscal year (July-June) basis only

Fish production in Latin America contracted 4 percent in 1980 after two years of impressive recovery. The decline was the result, primarily, of sharply reduced catches by Peru (down 973 000 t) and Argentina (down 176 000 t). Peruvian catches of anchoveta dropped 642 000 t during 1980, adversely affecting fish meal production; catches of pilchard (sardina) and mackerels also registered substantial declines, but hake landings increased by 56 000 t (60 percent). Catches of hake by Argentina, however, contracted 95 000 t during 1980, pulling down total production; spiralling costs adversely affected the operations of much of the Argentine fishing fleet, threatening many firms with bankruptcy and idling a large number of vessels. This crisis was unresolved as of early 1981. Mexico and Chile, however, both recorded impressive advances in catches during 1980, the former pushing up production by fully 377 000 t (according to preliminary figures), the latter by over 180 000 t. Heavier landings of pilchards were primarily responsible for the increase in Chilean production. Emphasis in the region continued to be on channelling a growing share of total catches into the food fish industry at the expense of the reduction industry. Heavier fish meal and oil output in Chile last year, however, indicates that a major share of that nation's increased catches in 1980 went for reduction.

Fish production in Africa apparently fell during 1980 to its lowest level in recent years. Nigeria, Tanzania and Namibia all reported sharply reduced catches, down 16, 30 and 35 percent, respectively. South Africa also recorded a 4 percent decline in catches. Total production on the continent is placed at a preliminary 3 990 000 t last year, down 330 000 t from 1979.

Among the developed countries, many of the major fishing nations reported reduced catches in 1980, pulling down total production by these countries as a group by slightly more than 1 percent. In North America, Canada reported significantly smaller catches. United States production rose 80 000 t after the record performance of 1979; reduced catches of menhaden were a factor in this decline. Canadian catches fell 72 000 t in 1980 - the second year of contraction after four years of impressive recovery, the product of labour problems in the Atlantic coast industry, depressed market conditions and poor catches in several key fisheries: catches of crustaceans and molluscs on the Atlantic coast alone fell over 100 000 t from the 1979 level.

Production in the European Economic Community rose 177 000 t during 1980, the result, primarily, of sharply increased catches by Denmark (+15 percent - mainly fish for reduction, but also cod and haddock), Italy and Ireland. Most other EEC nations recorded reduced catches, with those in the Federal Republic of Germany (-12 percent) and the United Kingdom (-10 percent), down sharply. The inability of EEC member states to agree on a common fishery policy (CFP) again in 1980 had particularly adverse effects on the results of the deep-sea fleet of the Federal Republic of Germany, especially on its previously important operations in Canada's EEZ. The German fleet was also unable to carry out its formerly important operations in Icelandic waters. The British industry suffered a substantial drop in mackerel catches during 1980 as stringent steps were taken to conserve stocks. Ireland's landings of mackerel, conversely, doubled last year.

The substantial declines in Norwegian and Icelandic catches, 233 000 t and 135 000 t, respectively, were key factors in the stagnation production in western Europe as a whole during 1980. Catches by Norway of nearly all the important pelagic species - capelin, mackerel and sprat - as well as those of blue whiting and cod, registered declines compared to 1979. In Iceland heavier catches of groundfish could not compensate for the over 200 000 t drop in capelin production. In contrast, Spanish production rose nearly 150 000 t in 1980 on the basis of heavier catches in the fresh and salted fish sectors of the industry.

The USSR reported a 204 000 t decline in production during 1980, as that nation's long-distance fleet faced further reductions in allowable catches and some expiries of fishing rights in the EEZs of other countries. Poland also is struggling with this problem and the resulting higher costs of vessel operations assoicated with new fishing grounds at greater distances from home ports. No data are yet available for Polish catches in 1980, but production is thought to have contracted. Poland is now reportedly debating whether to continue investment in her long-distance fleet or to increase fishing effort in the Baltic Sea and/or increase imports.

Production in Australia fell 7 000 t during 1979/80,[1/] the result of lower catches of crustaceans and molluscs. New Zealand domestic production rose sharply (+6 percent) again during (calendar year) 1980, with heavier catches in finfish and molluscs (except for squid, which declined nearly 30 percent compared to 1979). Data describing total Japanese catches during 1980 will unfortunately not be available until the end of May. However, based on available data on 1980 landings in 66 major fishing ports, Japanese production last year is estimated to have increased slightly to 10 million t, with heavier landings of pilchard (sardine), skipjack tuna, and especially, common squid.

INTERNATIONAL TRADE IN FISHERY COMMODITIES DURING 1980

Reduced world catches, depressed economic conditions in key markets, high interest rates and unstable currency parities (specially with respect to the US dollar), took their roll on the world market for fishery products during 1980. The total value of world fish exports was only marginally above that of 1979 (Table 2), at almost US$ 14 million, following the very impressive advances of recent years. Examination of import data in Table 3 reveals that total trade volume, at 9.4 million t product weight, was also up only slightly compared to 1979. Trade volume increased more than 10 percent between 1978 and 1979.

The slower growth of world trade levels was manifest in both food and non-food fish products. While small, the expansion of world trade volume in food fish products was not matched by the increase (on a percentage basis) in total trade value of these products, indicating a slight deterioration in the worldwide average unit value of food fish product imports in 1980 as compared to 1979. Consequently, the percentage of world fish trade value accounted for by food fish products, at 90 percent, retreated slightly in 1980. World trade in fish meal and oil, which accounted for the balance, marginally increased its share of total trade value, a measure of the rise in fish meal prices last year and a reversal of the general trend which began in the early 1970s.

Canada was again the leading exporter of fish and fishery products in the world during 1980, despite a 7 percent drop in fish product export value. Total export volume declined less than value (-4 percent to 485 000 t), resulting in an average price decrease of over 5 percent. Reduced landings last year was a major cause of the drop in Canadian exports, but depressed market conditions in the USA - which accounted for 53 percent of the total value and 51 percent of total volume of Canadian fish product export sales - were an important contributing factor. Canada's exports of fish products to the USA dropped over 3 percent in value and 12 percent in volume in 1980. In contrast, Canadian export sales to EEC countries last year rose impressively in both quantity and value, reaching 22 and 25 percent of total export volume and value, respectively, rewarding industry efforts to diversify their markets. A 26 percent expansion in the value of cured fish products was one of the bright spots in the Canadian fish export picture, while the over 75 percent reduction in the value of herring roe exports (almost all to Japan) was an important factor in the overall decline in the total and average per-unit value of Canadian exports during 1980. The value of US exports also went down last year (-6 percent), in spite of 31 percent rise in total volume (to 473 000 t). Exports of low-value products - particularly fish meal and oil - increased sharply, while those of most key high-value products, notably fresh/frozen salmon, shrimp, and king and snow crab, all contracted significantly. Exports of canned salmon, however, rose almost 50 percent in volume last year.

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1/ Data available on a fiscal-year basis only

Table 2

EXPORTS OF FISH AND FISHERY PRODUCTS

| | 1975 | 1976 | 1977 | 1978 | 1979 | 1980[a] prelim. | Change 1979-80 |
|---|---|---|---|---|---|---|---|
| | million US$ | | | | | | % |
| WORLD TOTAL | 6 348 | 7 912 | 9 575 | 11 607 | 13 869 | 13 966 | + 0.7 |
| Developed countries | 4 088 | 5 093 | 5 865 | 7 186 | 8 483 | 8 957 | + 5.6 |
| North America: | 740 | 971 | 1 265 | 1 877 | 2 182 | 2 034 | - 7 |
| Canada | 442 | 599 | 757 | 981 | 1 111 | 1 028 | - 7 |
| United States | 298 | 372 | 508 | 896 | 1 071 | 1 006 | - 6 |
| Western Europe: | 2 330 | 2 922 | 3 380 | 3 917 | 4 733 | 5 149 | + 9 |
| EEC: | 1 185 | 1 465 | 1 664 | 2 048 | 2 483 | 2 732 | +10 |
| Denmark | 427 | 586 | 629 | 731 | 859 | 931 | + 8 |
| German, Fed.Rep.of | 139 | 181 | 226 | 242 | 271 | 306 | +13 |
| Netherlands | 258 | 280 | 315 | 400 | 503 | 530 | + 5 |
| Others | 361 | 418 | 495 | 675 | 850 | 965 | +14 |
| Portugal | 58 | 60 | 70 | 87 | 98 | 100 | + 2 |
| Spain | 182 | 245 | 236 | 281 | 410 | 342 | -17 |
| Faroe Islands | 75 | 94 | 133 | 130 | 123 | 156 | +27 |
| Iceland | 243 | 317 | 381 | 507 | 595 | 696 | +17 |
| Norway | 515 | 655 | 805 | 760 | 891 | 974 | + 9 |
| Others[b] | 72 | 86 | 90 | 104 | 133 | 149 | +12 |
| Eastern Europe and USSR: | 273 | 278 | 268 | 307 | 393 | 393 | - |
| Eastern Europe | 61 | 80 | 73 | 68 | 93 | ... | - |
| USSR | 212 | 198 | 195 | 239 | 300 | ... | - |
| Other developed countries: | 746 | 1 821 | 953 | 1 035 | 1 175 | 1 381 | +18 |
| Japan | 490 | 649 | 631 | 755 | 720 | 754 | + 5 |
| Australia[c] | 96 | 103 | 160 | 166 | 217 | 291 | +34 |
| New Zealand | 35 | 44 | 49 | 64 | 103 | 160 | +55 |
| South Africa[d] | 123 | 122 | 108 | 98 | 132 | 175 | +33 |
| Israel | 2 | 3 | 5 | 3 | 3 | 1 | -67 |
| Developing countries | 2 260 | 2 819 | 3 710 | 4 421 | 5 387 | 5 009 | - 7.0 |
| Africa: | 230 | 244 | 248 | 280 | 305 | 278 | - 9 |
| Morocco | 64 | 80 | 71 | 90 | 108 | 81 | -25 |
| Others | 166 | 164 | 177 | 150 | 197 | ... | - |
| Latin America: | 697 | 911 | 1 035 | 1 431 | 1 810 | 1 752 | - 3 |
| Central America: | 232 | 307 | 305 | 490 | 550 | 538 | - 2 |
| Mexico | 161 | 205 | 197 | 393 | 453 | 410 | - 9 |
| Panama | 23 | 44 | 48 | 39 | 39 | 50 | +28 |
| Others | 48 | 58 | 60 | 58 | 58 | 78 | +34 |
| Caribbean | 60 | 75 | 79 | 96 | 98 | 78 | -20 |
| South America: | 405 | 529 | 651 | 845 | 1 162 | 1 136 | - 2 |
| Chile | 40 | 101 | 124 | 183 | 279 | 314 | +13 |
| Ecuador | 37 | 54 | 72 | 90 | 165 | 166 | - |
| Peru | 213 | 213 | 226 | 253 | 331 | 294 | -11 |
| Argentina | 20 | 40 | 84 | 152 | 152 | 140 | - 8 |
| Brazil | 43 | 54 | 74 | 97 | 145 | 130 | -10 |
| Others | 52 | 67 | 71 | 70 | 90 | 92 | + 2 |
| Near East (Africa and Asia): | 42 | 38 | 60 | 56 | 55 | 47 | -15 |
| Asia: | 921 | 1 156 | 1 773 | 2 003 | 2 505 | 2 445 | - 2 |
| Southern Asia: | 168 | 255 | 269 | 315 | 392 | 356 | - 9 |
| India | 133 | 193 | 197 | 248 | 309 | 278 | -10 |
| Others | 35 | 62 | 72 | 67 | 83 | 78 | - 6 |
| East and Southeast Asia: | 753 | 901 | 1 346 | 1 430 | 1 855 | 1 831 | - 1 |
| Indonesia | 83 | 124 | 151 | 151 | 218 | 245 | +12 |
| Korea, Rep. of | 361 | 321 | 697 | 639 | 795 | 760 | - 4 |
| Philippines | 18 | 28 | 42 | 62 | 90 | 80 | -11 |
| Thailand | 103 | 150 | 174 | 250 | 360 | 361 | - |
| Others | 188 | 278 | 282 | 328 | 392 | 385 | - 2 |
| Centrally planned economies:[e] | ... | ... | 158 | 238 | 258 | ... | - |
| Other developing countries | 370 | 470 | 594 | 651 | 712 | 487 | -32 |

a/ Including estimates (1979 data repeated) for countries for which 1980 data are not yet available

b/ Including Greece

c/ Data available for fiscal year (July-June) basis only

d/ Including Namibia

e/ Including China

Table 3

IMPORTS OF FISH AND FISHERY PRODUCTS

Q = '000 t, product weight
V = million US$

| | | TOTAL FISH PRODUCTS[a] | | | | FISH FOR HUMAN CONSUMPTION | | | FISH MEAL[b] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1978 | 1979 | 1980[c] prelim. | % change 1979-1980 | 1978 | 1979 | 1980[c] prelim. | 1978 | 1979 | 1980[c] prelim. |
| WORLD TOTAL | Q | 8 409 | 9 313 | 9 459 | + 1.6 | 5 720 | 6 273 | 6 436 | 2 045 | 2 314 | 2 280 |
| | V | 12 092 | 14 961 | 15 250 | + 1.9 | 10 878 | 13 633 | 13 736 | 908 | 979 | 1 034 |
| Developed countries | Q | 6 751 | 7 401 | 7 434 | + 0.4 | 4 505 | 4 857 | 4 905 | 1 639 | 1 858 | 1 828 |
| | V | 10 722 | 13 394 | 13 596 | + 1.5 | 9 696 | 12 277 | 12 262 | 739 | 790 | 842 |
| North America: | Q | 1 158 | 1 189 | 1 126 | - 5 | 1 108 | 1 099 | 1 074 | 40 | 82 | 45 |
| | V | 2 445 | 2 941 | 3 012 | + 2 | 2 426 | 2 905 | 2 984 | 13 | 30 | 16 |
| Canada | Q | 84 | 85 | 97 | +14 | 83 | 84 | 96 | 0 | 0 | 0 |
| | V | 216 | 266 | 303 | +14 | 216 | 266 | 302 | 0 | 0 | 0 |
| United States | Q | 1 074 | 1 104 | 1 029 | - 7 | 1 026 | 1 015 | 978 | 40 | 81 | 45 |
| | V | 2 228 | 2 674 | 2 709 | + 1 | 2 210 | 2 639 | 2 682 | 13 | 30 | 16 |
| Western Europe: | Q | 3 892 | 4 352 | 4 511 | + 4 | 2 204 | 2 441 | 2 609 | 1 104 | 1 245 | 1 217 |
| | V | 4 707 | 5 885 | 6 768 | +15 | 3 926 | 5 029 | 5 724 | 510 | 545 | 581 |
| EEC: | Q | 2 963 | 3 277 | 3 370 | + 3 | 1 697 | 1 852 | 1 958 | 725 | 817 | 784 |
| | V | 3 688 | 4 552 | 5 177 | +14 | 3 118 | 3 926 | 4 403 | 321 | 345 | 374 |
| Denmark | Q | 204 | 219 | 244 | +11 | 191 | 206 | 235 | 11 | 10 | 6 |
| | V | 221 | 270 | 260 | - 4 | 216 | 264 | 255 | 3 | 3 | 3 |
| France | Q | 459 | 468 | 487 | + 4 | 388 | 390 | 409 | 55 | 61 | 60 |
| | V | 812 | 998 | 1 158 | +16 | 778 | 962 | 1 118 | 26 | 28 | 30 |
| Germany, Fed.Rep. | Q | 760 | 838 | 908 | + 8 | 346 | 378 | 403 | 277 | 283 | 319 |
| | V | 766 | 885 | 1 012 | +14 | 593 | 699 | 793 | 111 | 105 | 138 |
| Italy | Q | 362 | 417 | 375 | -10 | 268 | 303 | 291 | 89 | 105 | 80 |
| | V | 547 | 722 | 756 | + 5 | 501 | 671 | 718 | 43 | 46 | 35 |
| Netherlands | Q | 329 | 350 | 335 | - 4 | 129 | 136 | 146 | 55 | 54 | 47 |
| | V | 327 | 369 | 394 | + 7 | 238 | 275 | 306 | 25 | 23 | 25 |
| United Kingdom | Q | 668 | 784 | 805 | + 3 | 259 | 314 | 341 | 192 | 256 | 226 |
| | V | 687 | 901 | 1 036 | +15 | 495 | 681 | 803 | 90 | 118 | 119 |
| Others | Q | 180 | 200 | 216 | + 8 | 118 | 125 | 133 | 46 | 48 | 46 |
| | V | 328 | 409 | 561 | +37 | 297 | 374 | 410 | 23 | 22 | 24 |
| Portugal | Q | 80 | 85 | 85 | - | 68 | 72 | 80 | 12 | 13 | 5 |
| | V | 65 | 74 | 87 | +18 | 59 | 68 | 84 | 6 | 6 | 3 |
| Spain | Q | 201 | 265 | 297 | +12 | 185 | 245 | 280 | 6 | 11 | 10 |
| | V | 246 | 410 | 545 | +33 | 239 | 404 | 539 | 3 | 2 | 2 |
| Sweden | Q | 170 | 202 | 210 | + 4 | 80 | 86 | 90 | 79 | 100 | 113 |
| | V | 246 | 292 | 344 | +18 | 200 | 236 | 284 | 40 | 48 | 57 |
| Others[d] | Q | 479 | 523 | 549 | + 5 | 175 | 185 | 201 | 282 | 304 | 305 |
| | V | 462 | 557 | 615 | +10 | 311 | 395 | 414 | 140 | 144 | 145 |
| Eastern Europe and USSR: | Q | 672 | 706 | 706 | - | 268 | 285 | 285 | 398 | 416 | 416 |
| | V | 331 | 339 | 339 | - | 165 | 174 | 174 | 163 | 163 | 163 |
| Eastern Europe | Q | 592 | 596 | ... | - | 188 | 175 | ... | 398 | 416 | ... |
| | V | 287 | 288 | ... | - | 121 | 123 | ... | 163 | 163 | ... |
| USSR | Q | 80 | 110 | ... | - | 80 | 110 | ... | - | - | ... |
| | V | 44 | 51 | ... | - | 44 | 51 | ... | - | - | ... |
| Other developed countries: | Q | 1 029 | 1 154 | 1 091 | - 5 | 924 | 1 033 | 937 | 98 | 116 | 150 |
| | V | 3 240 | 4 229 | 3 477 | -18 | 3 179 | 4 169 | 3 380 | 52 | 54 | 82 |
| Japan | Q | 923 | 1 054 | 972 | - 8 | 833 | 947 | 829 | 85 | 102 | 139 |
| | V | 3 042 | 4 018 | 3 218 | -20 | 2 990 | 3 966 | 3 127 | 45 | 46 | 77 |
| Australia[e] | Q | 58 | 58 | 65 | +12 | 55 | 53 | 60 | 3 | 4 | 5 |
| | V | 137 | 144 | 174 | +21 | 136 | 141 | 171 | 1 | 2 | 2 |
| New Zealand | Q | 4 | 5 | ... | - | 4 | 5 | 5 | - | - | - |
| | V | 11 | 19 | ... | - | 11 | 19 | 19 | - | - | - |
| South Africa[f] | Q | 23 | 17 | 23 | +35 | 21 | 16 | 23 | - | - | - |
| | V | 29 | 27 | 43 | +59 | 27 | 27 | 43 | - | - | - |
| Israel | Q | 21 | 21 | 26 | +23 | 12 | 12 | 20 | 10 | 10 | 6 |
| | V | 21 | 21 | 23 | +10 | 15 | 15 | 20 | 6 | 6 | 3 |
| Developing countries | Q | 1 658 | 1 912 | 2 025 | + 5.9 | 1 215 | 1 416 | 1 531 | 405 | 455 | 452 |
| | V | 1 370 | 1 567 | 1 694 | + 6.6 | 1 182 | 1 357 | 1 474 | 169 | 189 | 192 |
| Africa: | Q | 444 | 516 | 544 | + 5 | 419 | 491 | 519 | 23 | 23 | 23 |
| | V | 296 | 319 | 349 | + 9 | 283 | 306 | 336 | 11 | 11 | 11 |
| Nigeria | Q | 100 | 170 | 200 | +16 | 100 | 172 | 200 | 0 | 0 | 0 |
| | V | 130 | 172 | 200 | +17 | 130 | 170 | 200 | 0 | 0 | 0 |
| Others | Q | 344 | 344 | ... | - | 319 | 319 | 319 | 23 | 23 | 23 |
| | V | 166 | 149 | ... | - | 152 | 136 | 136 | 11 | 11 | 11 |
| Latin America: | Q | 333 | 391 | 388 | - 1 | 209 | 247 | 245 | 97 | 115 | 113 |
| | V | 283 | 334 | 345 | + 3 | 233 | 278 | 283 | 36 | 41 | 47 |
| Central America: | Q | 43 | 66 | 67 | + 2 | 15 | 19 | ... | 27 | 45 | ... |
| | V | 31 | 41 | 42 | + 2 | 19 | 23 | ... | 11 | 16 | ... |
| Mexico | Q | 33 | 55 | ... | - | 7 | 11 | ... | 24 | 42 | ... |
| | V | 20 | 30 | ... | - | 9 | 13 | ... | 10 | 15 | ... |
| Others | Q | 10 | 11 | 12 | + 9 | 8 | 8 | ... | 3 | 3 | ... |
| | V | 11 | 11 | 12 | + 9 | 10 | 10 | ... | 1 | 1 | ... |
| Caribbean: | Q | 139 | 141 | 139 | - 1 | 86 | 89 | 89 | 52 | 52 | 50 |
| | V | 112 | 113 | 126 | +12 | 93 | 94 | 101 | 19 | 19 | 25 |
| Cuba | Q | 90 | 90 | 88 | - 2 | 38 | 38 | 38 | 52 | 52 | 50 |
| | V | 42 | 42 | 55 | +31 | 23 | 23 | 30 | 19 | 19 | 25 |
| Others | Q | 49 | 51 | 51 | - | 49 | 51 | 51 | - | - | - |
| | V | 70 | 71 | 71 | - | 70 | 71 | 71 | - | - | - |
| South America: | Q | 151 | 184 | 182 | - 1 | 108 | 139 | 137 | 18 | 18 | 18 |
| | V | 139 | 180 | 177 | - 2 | 121 | 161 | 159 | 6 | 6 | 6 |
| Brazil | Q | 66 | 95 | 95 | - | 66 | 93 | 93 | 0 | 0 | 0 |
| | V | 71 | 106 | 106 | - | 71 | 106 | 106 | 0 | 0 | 0 |
| Others | Q | 85 | 89 | 87 | - 2 | 42 | 46 | 44 | 18 | 18 | ... |
| | V | 68 | 73 | 71 | - 3 | 50 | 55 | 53 | 6 | 6 | ... |

Table 3 (cont.)

| | | TOTAL FISH PRODUCTS[a] | | | | FISH FOR HUMAN CONSUMPTION | | | FISH MEAL[b] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1978 | 1979 | 1980[c] prelim. | % change 1979-1980 | 1978 | 1979 | 1980[c] prelim. | 1978 | 1979 | 1980[c] prelim. |
| Near East: | Q | 191 | 188 | 208 | +11 | 125 | 132 | 145 | 64 | 54 | 61 |
| | V | 148 | 139 | 159 | +14 | 127 | 121 | 133 | 21 | 17 | 24 |
| Africa: | Q | 80 | 80 | 100 | +25 | 67 | 67 | 80 | 13 | 13 | 20 |
| | V | 55 | 31 | 51 | +65 | 50 | 28 | 41 | 5 | 3 | 10 |
| Egypt | Q | 80 | 80 | 100 | +25 | 67 | 67 | 80 | 13 | 13 | 20 |
| | V | 54 | 30 | 50 | +67 | 49 | 27 | 40 | 5 | 3 | 10 |
| Others | Q | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 |
| | V | 1 | 1 | 1 | - | 1 | 1 | 1 | 0 | 0 | 0 |
| Asia: | Q | 111 | 108 | 108 | - | 57 | 65 | 65 | 51 | 41 | 41 |
| | V | 93 | 108 | 108 | - | 77 | 92 | 92 | 15 | 14 | 14 |
| Saudi Arabia | Q | 19 | 29 | ... | - | 19 | 29 | ... | 0 | 0 | ... |
| | V | 30 | 46 | ... | - | 30 | 46 | ... | 0 | 0 | ... |
| Others | Q | 92 | 79 | ... | - | 38 | 36 | ... | 51 | 41 | .... |
| | V | 63 | 62 | ... | - | 47 | 46 | ... | 15 | 14 | ... |
| Asia: | Q | 519 | 619 | 707 | +14 | 412 | 491 | 571 | 104 | 124 | 130 |
| | V | 502 | 604 | 700 | +16 | 464 | 559 | 644 | 36 | 43 | 48 |
| Southern Asia: | Q | 6 | 6 | 24 | +300 | 6 | 5 | 23 | - | - | - |
| | V | 2 | 2 | 19 | +850 | 1 | 1 | 18 | - | - | - |
| Sri Lanka | Q | 5 | 5 | 23 | +360 | 5 | 5 | 23 | - | - | - |
| | V | 1 | 1 | 18 | +1 700 | 1 | 1 | 18 | - | - | - |
| Others | Q | 1 | 1 | 1 | - | 1 | 0 | 0 | - | - | - |
| | V | 1 | 1 | 1 | - | 0 | 0 | 0 | - | - | - |
| East and Southeast Asia: | Q | 513 | 613 | 683 | +11 | 406 | 485 | 548 | 104 | 124 | 130 |
| | V | 500 | 602 | 681 | +13 | 463 | 557 | 626 | 36 | 43 | 48 |
| Hong Kong | Q | 89 | 100 | 109 | + 9 | 82 | 92 | 99 | 7 | 8 | 10 |
| | V | 252 | 307 | 350 | +14 | 250 | 303 | 342 | 3 | 3 | 4 |
| Malaysia[g] | Q | 122 | 122 | 197 | +61 | 102 | 102 | 164 | 19 | 15 | 32 |
| | V | 46 | 49 | 73 | +49 | 42 | 44 | 65 | 4 | 5 | 7 |
| Philippines | Q | 48 | 48 | 54 | +12 | 30 | 30 | 38 | 18 | 18 | 16 |
| | V | 31 | 31 | 44 | +42 | 24 | 24 | 36 | 7 | 7 | 8 |
| Singapore | Q | 150 | 156 | 173 | +11 | 97 | 95 | 118 | 52 | 60 | 54 |
| | V | 101 | 111 | 139 | +25 | 83 | 91 | 118 | 18 | 20 | 21 |
| Others | Q | 104 | 187 | 150 | -20 | 95 | 166 | 129 | 7 | 18 | 18 |
| | V | 69 | 104 | 75 | -28 | 64 | 94 | 65 | 3 | 8 | 8 |
| Centrally planned economies: | Q | 0 | 0 | 0 | - | 0 | 0 | 0 | - | - | - |
| | V | 0 | 0 | 0 | - | 0 | 0 | 0 | - | - | - |
| Other developing countries: | Q | 171 | 198 | 178 | -10 | 51 | 56 | 51 | 118 | 140 | 125 |
| | V | 141 | 171 | 141 | -18 | 74 | 93 | 78 | 65 | 77 | 62 |

a/ Including fish oil

b/ Meals and solubles of aquatic animal origin

c/ Including estimates (1979 data repeated) for countries for which 1980 data are not yet available

d/ Including Greece

e/ Data available on fiscal year (July-June) basis only

f/ Including Namibia

g/ 1980 data for West Malaysia and Sarawak only. Sabah as yet unavailable

As may be seen in Table 4, the major exporting nations in northern Europe all recorded significant advances in their fish exports, and accounted for the bulk of the expansion in the value of world and developed countries' exports of fish products during 1980. In spite of reduced catches, exports by Iceland expanded fully 17 percent in value, primarily on the basis of heavier shipments of groundfish and cured fish products. Reduced export sales of groundfish products to the USA were more than compensated for by an increase in exports of frozen fillets to the USSR (+123 percent), the Federal Republic of Germany (+300 percent) and the UK (+7 percent). Exports of stockfish to Nigeria rose almost ninefold from the volume of 1979. Norwegian exports increased 9 percent in total value as total volume dropped 12 percent. Smaller shipments of groundfish products (mainly cod fillets) to the UK, USA and other countries, and lower exports of mackerel, cured fish, as well as fish meal and oil accounted for the decline in volume, but higher average prices in all major product categories boosted total Norwegian export value. Danish exports increased in both value (+8 percent) and volume (+15 percent) on the basis of heavier shipments of and higher prices for groundfish fillets, cured fish, canned fish and fish meal and oil.

Table 4

Largest fish exporters and importers during 1980

| Exporters | | | Importers | | |
|---|---|---|---|---|---|
| | 1980 | Change 1979-80 | | 1980 | Change 1979-80 |
| | US$ million | | | US$ million | |
| 1. Canada | 1 028 | -83 | 1. Japan | 3 218 | -800 |
| 2. USA | 1 006 | -65 | 2. USA | 2 709 | +35 |
| 3. Norway | 974 | +83 | 3. France | 1 158 | +160 |
| 4. Denmark | 931 | +72 | 4. UK | 1 036 | +135 |
| 5. Korea, Rep. | 760 | -35 | 5. Germany, F.R. | 1 012 | +127 |
| 6. Japan | 754 | +34 | 6. Italy | 756 | +34 |
| 7. Iceland | 696 | +101 | 7. Spain | 545 | +135 |
| 8. Netherlands | 530 | +27 | 8. Netherlands | 394 | +25 |
| 9. Mexico | 410 | -43 | 9. Hong Kong | 350 | +43 |
| 10. Chile | 314 | +35 | 10. Sweden | 344 | +52 |
| Total | 7 403 | +126 | | 11 522 | -54 |

Of the other developed nations among the top ten exporters, both the Netherlands and Japan posted a 5 percent increase in the total value of their fish product exports in 1980. Heavier shipments of fresh/frozen skipjack (up 131 percent in value and 54 percent in volume) and canned mackerel (up 49 and 17 percent, respectively) and sardines (up 29 and 11 percent, respectively) were primarily responsible for the rise in Japanese exports.

Among the developing nations in the top ten, total fish exports by the Republic of Korea contracted 4 percent in value, while those by Mexico (estimated on the basis of receipts by major importers) declined 9 percent, primarily the result of the fall in shrimp prices in the USA during 1980. Mexico, along with Chile, joined the top ten last year for the first time, replacing Peru and the USSR (1980 data for the USSR are as yet unavailable). Chilean exports, which rose 13 percent in value in 1980, have exhibited very impressive expansion in recent years, based primarily on growing exports of fish meal and oil, but also on frozen hake, lobster, canned sea food, cured products and aquatic plant products. The top ten exporting nations accounted for more than 50 percent of the total value of world fish product exports in 1980.

Of the other major exporting nations in the developing world, Peru, Argentina and Brazil in Latin America, and India in Asia, all recorded marked contractions in the total value of their fish product exports during 1980. Sharply reduced output and exports of fish meal were the chief culprits in Peru. The inter-related effects of reduced catches, inflation and soaring fuel prices combined to throttle the Argentinian fish export industry. Lower export sales by Brazil and especially India reflected depressed market conditions - most conspicuous in the shrimp and lobster sectors - in the USA and Japan.

On the imports side, Japan remained the largest importer of fish products in the world, but her share of the world total value dropped to only slightly more than 20 percent during 1980 with the US$ 800 million decline in value of Japanese imports. Volume fell 10 percent to 1 037 000 t, as receipts of most major products - notably tuna, salmon, shrimp, crab, lobster, cuttlefish, salted/dried herring and salmon roes - registered significant reductions. Imports into the USA increased 1 percent in value despite a 7 percent decline in total volume. US imports of frozen groundfish, tuna, lobster and shrimp products all dropped from 1979 levels; canned tuna and sardine imports, however, recorded an increase.

In western Europe, all the major importing nations reported higher fish product import bills in 1980. UK receipts increased 15 percent to over US$ 1 000 million as the value of imports in most major product categories - the most notable exception being whitefish - increased compared to 1979. The Federal Republic of Germany's imports of fresh/frozen fish (especially cod and saithe) and shellfish, canned fish and fish meal rose significantly in value to boost her total fish product import bill by 14 percent. The total value of French imports increased even more (+15 percent) as the value of receipts in virtually all major project categories rose. The increases, however, were especially large for fresh/frozen cod, saithe, tuna, shrimp, squid and cuttlefish. Spain registered a sharp rise (+33 percent) in the total value of her fish product imports for the second consecutive year on the basis of heavier receipts of, most notably, fresh/frozen hake, shrimp, squid, cuttlefish and most other shellfish. Total Italian, Dutch and Swedish receipts recorded smaller increases, while those of Hong Kong expanded 14 percent in value.

Strong and growing import demand for fish products in Nigeria and Egypt (data are preliminary estimates) as well as in Hong Kong, Singapore and Sri Lanka were instrumental in the 7 percent rise in the value of fish product imports by developing countries as a group during 1980.

Table 5

Shares in international trade of fish and fishery products
(percentage of the world total)

| | Imports | | | | | | Exports | | |
|---|---|---|---|---|---|---|---|---|---|
| | Quantity | | | Value | | | Value | | |
| | 1970/72 | 1979 | 1980 | 1970/72 | 1979 | 1980 | 1970/72 | 1979 | 1980 |
| World | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Developed countries | 75.0 | 71.9 | 71.7 | 85.0 | 87.3 | 87.1 | 64.0 | 58.3 | 61.3 |
| Developing countries | 16.0 | 20.5 | 20.9 | 11.0 | 10.5 | 11.0 | 30.0 | 37.0 | 34.0 |
| Centrally planned economies | 9.0 | 7.6 | 7.5 | 4.0 | 2.3 | 2.2 | 6.0 | 4.7 | 4.7 |

Of special significance during 1980 was the setback suffered in the export performance of developing countries as a group. The value of fish product exports by these nations declined 7 percent to US$ 5 000 million. This decline followed nearly a decade of impressive growth and reduced developing countries' share of total world export value to 34 percent (Table 4), down from 37 percent the previous year and a reversal of the trend since the early seventies. Most of the large exporting nations in the developing world witnessed a drop in the value of their fish product exports last year. In contrast, exports of developed nations as a group rose over 5 percent in value, and is reflected in their increased share of the world total in 1980.

Table 5 also highlights the growing role of developing countries as export markets. Their share of total world import volume rose again in 1980 to nearly 21 percent, up from 16 percent in the early seventies. Their share of the total value of world fish product imports also increased marginally last year. Developed nations' share of both world import value and volume declined slightly in 1980.

PRINCIPAL FISHERY COMMODITY MARKETS - 1980 SITUATION AND OUTLOOK 1981

Frozen Whitefish

Total supplies of whitefish on the world market improved slightly during 1980, as availabilities in key exporting nations compensated for shrinking export supplies from Norway, Greenland, Argentina, Japan and apparently the Republic of Korea. In the latter two countries, domestic demand requirements and reduced production of Alaska pollack (at least in Japan; Alaska pollack landings data for Korea are not yet available) resulted in tightening supplies of blocks, mince and fillets of this species, particularly in the North American and British markets. Export supplies of cod products dropped sharply (-36 percent) in Norway last year, and to a lesser degree in Greenland as cod landings in these two nations declined in 1980. Argentinian shipments of hake products contracted substantially last year - data are not yet available, but US receipts of blocks from Argentina in 1980 declined almost 50 percent - as hake landings in 1980 were 95 000 t below those of the previous year. Inflation and the spiralling costs of operations idled much of the fleet by the end of 1980 and into early 1981 and threatened many firms with bankruptcy. Fully 8 of the 12 joint venture operations with Spain are to be cut and the Argentine Government took numerous steps to salvage the situation, including a peso devaluation, cancellation of the 15 percent export tax, and efforts to assist firms trying to refinance outstanding debts.

Heavier shipments of hake products by Uruguay, Peru and South Africa helped offset the diminished supplies from Argentina. Hake landings increased last year in both Uruguay and Peru, the latter country recording a 56 000 t increase after the very substantial decline of 1979; Peru continued its policy emphasis on the expansion of the production of frozen fish for human consumption. Chilean hake landings during 1980 were marginally below those of the previous year.

Increased exports of groundfish products by Canada, Iceland, the Faroe Islands, Sweden, Denmark and the Netherlands last year more than compensated for the lower exports of Norway and Greenland. Canada reported a 25 percent expansion of cod exports in the face of a slight decline in landings and considerable labour problems as stocks were drawn down in the closing months of 1980; exports of haddock products also increased, but those of ocean perch (redfish) products dropped 35 percent with the substantial drop in landings. Parallelling Canada, Iceland's exports rose substantially last year with heavier catches of cod, redfish and Greenland halibut. The Faroe Islands expanded its exports slightly, based primarily on haddock and saithe products. The Netherlands combined a marginal increase in groundfish landings with re-exports to record heavier total groundfish export volume last year.

First-hand prices for raw material presented a mixed picture. Those for cod increased very moderately in most countries, on a year-average basis, and even declined slightly in Sweden (heavier landings) and the UK (competing imports). In Iceland and Norway, however, ex-vessel prices for cod averaged about 20 percent higher last year due to the strong

competition between processors of frozen and cured fish products for supplies. Among other important groundfish species, 1980 average ex-vessel haddock prices dropped in most producing nations, particularly the UK, where landings increased more than tenfold from the low 1979 level. First-hand values for flatfish rose substantially again last year in most producing nations as landings declined. First-hand prices, while generally higher in 1980, were often not sufficient to cover escalating fleet operating costs, especially the rising fuel costs associated with offshore trawling. In the UK this problem culminated with a nation-wide strike in early 1981 of fishermen protesting, so called 'cheap imports' and their impact on ex-vessel prices. British fishermen have strongly requested increased government aid and more stringent measures to limit landings in Britain by foreign fleets, particularly those from Denmark and the Netherlands. In the Federal Republic of Germany, fishermen blockaded approach roads to certain harbours to prevent French, Danish and Dutch-caught fish from reaching processing plants. Government subsidies to fishermen have consequently been established, or are being considered for establishment or expansion in a number of western European fishing nations, e.g., Norway, UK, Federal Republic of Germany and France. Import prices for raw material increased again last year for most products, particularly in western Europe, due to inflation, rising fuel costs and the continued adjustment to new and longer market channels. The on-going uncertainty caused by the inability of EEC nations to reach an agreement on a common fishery policy, and growing EEC protectionism have also contributed to the rising prices, and the maintenance of the gap between prices in Europe and North America.

The large US groundfish market (fillets and blocks) contracted over 7 percent last year to 374 300 t following a slightly more than 2 percent growth in 1979. The decline was effected in the block sector of the market, where usage was down almost 16 percent to 160 200 t; total fillet usage increased marginally to 214 100 t. Per caput consumption of groundfish fell almost 3 percent to 1.9 kg last year; the decline was concentrated in the fish sticks and portions market, reflecting the lower block usage and a contraction in the retail segment of the market. The relative performance of the food service trade was much better. US imports of fillets and blocks during 1980 fell over 15 percent to 285 300 t as receipts of both products declined. Fillet imports decreased almost 13 percent to 132 850 t with lower receipts of all species. Imports of fillets were lower from all major suppliers except Norway. Purchases from Canada, the largest supplier, fell 16 percent. Receipts of blocks decreased over 15 percent to 285 300 t, with all species types except haddock (+71 percent) lower than 1979. The decline in receipts of Alaska pollack and whiting blocks was especially sharp, reflecting reduced shipments by Japan, Korea and Argentina. Imports from all major suppliers except Poland were down compared to 1979.

Cod block prices remained stable through 1980 at US$ 1.05 per lb, up only slightly from the 1979 average (see Annex Table). Prices for whiting blocks, on the other hand, averaged US$ 0.11 per lb higher in 1980 as compared to 1979, increasing into the third quarter of the year before subsiding during the final quarter. Pollack and Alaska pollack block prices both averaged lower in 1980. Alaska pollack blocks exhibited strengthening prices during the later half of the year and were at US$ 0.70 per lb by November 1980. Pollack block prices were stable during the final three quarters of the year, down slightly from the first quarter, and stood at US$ 0.73 per lb in December 1980.

Block prices in March 1981 were above those of the same month of the previous year for both cod and pollack blocks, while other species were unchanged or lower. Cod fillets from Canada were also higher, but most other fillets exhibited unchanged at lower prices. The groundfish market registered some improvement during the early months of 1981, but this improvement is more related to tight supplies than a resurgence of consumer demand. Total US stocks of groundfish fillets and blocks at the end of January 1981 were almost 20 percent below the level of a year previous. Improved performance of the US economy of late may very well translate into further improvement in the groundfish market. Some industry representatives are forecasting market growth of around 2 percent during 1981. The higher value of the US dollar is already affecting US import demand favourably.

The European whitefish market was slow with sales sluggish during most of 1980, but improved moderately during the closing months of the year. Supplies were generally ample and prices soft due to economic recession and high inflation, interest rates and unemployment. The failure of the EEC to agree on a common fishery policy as well as quota restrictions again influenced supplies in key market countries. Landings in 1980 of whitefish for human consumption declined in the UK, Federal Republic of Germany and Belgium, and were virtually unchanged in the Netherlands and France. Imports into the UK and the Federal Republic of Germany, where landings declined the most among these countries, registered selective increases. Receipts by France also rose despite virtually stable landings. In the Netherlands and Belgium, both landings and imports recorded little change.

European whitefish fillet supplies in 1980 were generally ample, keeping price rises moderate. Prices of saithe (Atlantic pollack) fillets remained stable in both the UK and the Federal Republic of Germany with increased supplies. Supplies and sales of redfish fillets in Germany both increased, but prices decreased. Cod fillet prices were weak with European supplies ample into the third quarter of the year, but thereafter firmed as supplies grew tighter. Good supplies of haddock kept prices for both haddock fillets and blocks on the down side.

Cod block prices increased late in 1980 as supplies tightened; but supplies were ample and prices weak through most of the year. Hake blocks were in short supply in Britain last year, pushing up prices, but stable supplies in the Federal Republic of Germany resulted in stable prices. Supplies were tight and prices higher, particularly in the UK, for saithe blocks.

For 1981, the lack of agreement on an EEC Common Fishery Policy could lead to a breakdown of existing and mostly informal conservation agreements, and complicate access arrangements for EEC fleets to important fishing grounds. This latter problem is of particular relevance for the fishing fleet of the Federal Republic of Germany and its access to Canadian waters. Investment decisions by EEC producers have also been complicated (by the lack of agreement on a common fishery policy) due to the uncertainty of catch quota levels in EEC waters and these problems, combined with the growing protectionist policy of the EEC - higher reference prices, tariffs and tariff quotas - point to higher prices this year. This conclusion is reinforced by the fact of reduced catch quotas for cod in the North Sea (down 10 000 t), Baltic Sea (down 8 000 t) and the Barents Sea (down 90 000 t). The later development will probably lead to another reduction in Norwegian supplies of frozen cod products as the bulk of cod processed by Norwegian freezing plants comes from the Barents Sea, a joint resource between Norway and the USSR. The haddock quota for this area, however, was increased 46 percent to 110 000 t. In the North Sea, the catch quota for saithe was also reduced slightly, but quotas for haddock and whiting were increased 51 000 t and 45 000 t, respectively. Icelandic production of cod is not expected to increase much, if at all during 1981; they may, in fact, decline if allowable catch recommendations are enforced. Increased quotas for groundfish off the Atlantic coast of Canada, however, could result in 1981 groundfish catches in these waters increasing moderately. But in Europe, falling catch quotas have made excess fleet capacity a severe problem for many European nations, e.g., Norway, Iceland, the UK, the Federal Republic of Germany and France.

Demand for whitefish products in the western European market has improved moderately during the opening months of 1981, but as in the US market, is still not based on a strong resurgence of consumer demand. Prices for most whitefish products are expected to increase this year, with limited exceptions, such as haddock. The early closure of the Canadian offshore cod fishery due to the filling of the annual quota in less than 2 months, could very well affect supplies (downward) and prices (upward) for cod products in western Europe later in the year. In addition, the fluctuating value of the US dollar and high interest rates has been - and can be expected to continue - affecting the groundfish trade in western Europe negatively.

Frozen Tuna

After a difficult 1979, catches of tuna by the major producing countries improved in 1980. The USA, Mexico, France and the Philippines are known to have expanded their production last year, and incomplete data indicate that catches by Japan, New Zealand, Australia, and possibly Spain also rose. Many of the developing tuna producing/exporting nations in the Eastern Pacific suffered setbacks in 1980, however.

Total tuna catches in the important Eastern Pacific fishery dropped almost 7 percent to 319 000 t, as production by Ecuador, Panama, Netherlands Antilles, Costa Rica, Peru and the Republic of Korea, all recorded significant declines. Total skipjack tuna catches in the Eastern Pacific rose marginally, but catches of yellowfin fell 16 percent as the IATTC[1/] was unable to effectively administer conservation measures in the CYRA[2/] for the third year due to the inability of the governments of Eastern Pacific coastal nations to agree on a quota mechanism. The USA and Mexico were almost alone in recording heavier catches in the Eastern Pacific fishery. US catches west of the CYRA increased substantially, boosting total landings despite excalating fuel and vessels financing costs and the continuing transfer of US boats to foreign countries. US catches of albacore tuna in the Northern Pacific fishery were also up almost 20 percent to 6 500 t. While Mexican tuna production was substantially heavier, the rise was not commensurate with the increase in Mexican fleet capacity last year - up over 50 percent to about 36 000 short t. The carrying capacity of the Mexican fleet is expected to expand another 10 000 short t during 1981, as at least 23 new purse seiners are reportedly under construction or on order in the USA, Italy and Spain. The large US Eastern Pacific fleet, at 111 000 short t of carrying capacity at the end of 1980, will also expand as at least 17 new purse seiners are currently under construction or on order in US shipyards (some of these vessels, while US-owned, will fly foreign flags), and another 8 vessels are under construction in Italian shipyards. Other nations active in the Eastern Pacific fishery - notably Costa Rica and Panama - are planning additions to their tuna fleets during 1981. In Peru, however, the state-owned fishing/processing enterprise, Pepesca, announced recently that it is selling its entire 8-vessel (2 only partially constructed) tuna fleet.

In the Eastern Atlantic fishery, total catches, at 197 000 t, increased only 1 000 t as heavier landings of skipjack tuna balanced a decline in catches of yellowfin tuna. France, the USA and possibly Spain, recorded heavier production. French vessel owners plan over the next 4 years to add at least 9 new purse seiners to the current French tropical tuna fleet of 23 vessels.

Tuna catches were apparently higher during 1980 in the Western Pacific fishery also. The Philippines reported heavier landings, catches by US vessels were up, and preliminary information indicates an expansion in landings last year in New Zealand, Australia and Japan. Further fleet expansions are expected in all the above-mentioned nations (as well as in Indonesia), except Japan. NIKKATSU-REN (Federation of Japan Tuna Fisheries Association) announced in November 1980 the intention of cutting the size of the Federation's 1000-vessel tuna and bonito fleet by 20 percent, citing lack of access to many formerly lucrative fishing grounds due to the enforcement of EEZ restrictions and prohibitions by coastal nations. Japan is presently excluded from fishing in the waters of 12 nations, including Mexico and Indonesia, and is facing growing restrictions and access fees in many of the remaining nations. The recent slump in Japanese ex-vessel prices and rising fuel costs - now 35-40 percent of catch value - has placed many vessel operators in financial straits and forced a re-evaluation of the industry's tuna production strategy.

Developments in the Japanese tuna fishing industry throws into sharp relief the growing importance for established tuna fishing nations of joint venture arrangements, a trend which accelerated during 1980. The establishment and enforcement of 200-mi EEZs has forced

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1/ Inter-American Tropical Tuna Commission
2/ Conservation Yellowfin Regulatory Area

Japan, the United States, France, Spain and the Republic of Korea to turn to joint-venture arrangements with developing coastal nations rich in tuna resources in Latin America, West Africa, Asia and Oceania, as well as with New Zealand and Australia.

On the market side, ex-vessel prices for frozen tuna were stable during most of 1980 and early 1981 in the United States, but fluctuated in Japan. Ex-vessel prices for US-caught fish were renegotiated during March 1980, raising the price levels for large skipjack tuna by almost 30 percent to US$ 1 100/short t, large yellowfin tuna by 26 percent to US$ 1 200/short t, large yellowfin tuna by 26 percent to US$ 1 610/short t. They remained at these levels through April 1981 while efforts were underway to negotiate new prices; the lack of agreement on new price levels has curtailed US fishing effort so far this year. United States import prices for frozen skipjack tuna, in contrast, strengthened between January and April 1980 (from US$ 1 250 to US$ 1 490),[1/] weakened in the following three months (to US$ 1 200),[1/] then remained around the US$ 1 250 level through March 1981. The lower prices did not result in heavier US imports of frozen tuna, however, as domestic landings increased. Imports dropped 7 percent to 270 000 t with receipts from most major suppliers except Japan, the Philippines and South Africa down from last year. An increase in receipts of skipjack and yellowfin tuna did not compensate for the sharp drop in imports of albacore.

The strength of the US dollar could help stimulate a recovery in import demand during 1981, but developments in the domestic supply picture will be the principal determinant. The current US embargo of tuna and tuna products from Mexico, Ecuador, Peru and Costa Rica will cut off significant sources of US frozen tuna imports (over 16 000 t were imported from Mexico and Venezuela last year).

In Japan, ex-vessel prices at the leading tuna port of Yaizu were strong for most species into April-May 1980. Skipjack and yellowfin tuna prices fluctuated downward thereafter through February 1981, but bigeye and albacore prices showed renewed strength during late 1980 and early 1981. By February 1981, yellowfin and albacore ex-vessel prices were above the levels of a year earlier, while skipjack and bigeye prices were lower.

Japanese ex-vessel tuna prices at Yaizu
(US$/short t)

| | 1980 | | | | | 1981 | |
|---|---|---|---|---|---|---|---|
| | January | April | July | October | December | January | February |
| Yellowfin (large) | 1 799 | 2 030 | 2 543 | 1 927 | 1 857 | 1 885 | 2 011 |
| Skipjack | 1 327 | 1 410 | 1 165 | 1 186 | 1 239 | 1 349 | 1 287 |
| Bigeye | 3 958 | 2 922 | 2 659 | 2 686 | 2 795 | 2 369 | 3 736 |
| Albacore | 2 068 | 2 000 | 1 619 | 2 198 | 2 393 | 2 542 | 2 462 |

Tokyo wholesale prices (see Annex Table) trended steadily downward through January 1981 for frozen yellowfin tuna, but have firmed in recent months for bigeye tuna. As in the United States, lower prices did not boost import volume. Total receipts of fresh, chilled and frozen tuna during 1980, at 82 900 t, were 18 percent below the previous year. Imports during 1981 could very well expand if the Japanese tuna production picture does not brighten.

In contrast to the United States and Japan, the major frozen tuna importing nations of Western Europe recorded an increase in their receipts last year. Italian imports through November 1980, at 68 800 t, were 8 percent above those of the same period of the previous year. The average import value per ton during the 11-month period was up 37 percent. Similarly, French average import value per ton rose 25 percent during 1980, but the volume of receipts increased only 2 percent to 10 800 t. Spanish receipts also expanded. The recent weakening of both the franc, peseta and the lira may very well hamper French, Spanish and Italian importers during 1981.

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1/ Japanese export price for frozen round skipjack tuna C & F West Coast, United States

Some tuna industry representatives now expect world consumption of canned tuna to increase from current levels to over 2 million t by 1985.

Frozen Shrimp

The world shrimp industry experienced a difficult year in 1980. Unfavourable economic conditions in the major markets - Japan and the USA - eroded consumer demand and prices, resulting in reduced imports. Import demand in many western European countries, however, increased last year. Producers in many countries suffered the effects of weak demand and declining product prices coupled with rising fuel costs.

In the USA apparent consumption of all shrimp products increased to 200 000 t (440 million lb)[1/], up 8 percent from the low level of 1979. Fresh/frozen products accounted for nearly all shrimp consumption, the growth of which was fuelled by increased domestic supplies. Total US landings of tropical and northern shrimp, at 94 400 t (208 million lb), were 1 percent above the 1979 level. But the bulk of increased supplies derived from a 45 percent drop in US exports of fresh/frozen shrimp in 1980 - to 7 220 t (15.9 million lb - product weight) - and a heavy drawdown on stocks. Cold storage holdings at the end of 1980 were down almost 4 500 t (9.8 million lb - product weight), or 11 percent compared to the high level at the end of 1979 as high interest rates spurred a reduction in inventories and the associated carrying costs. Imports during 1980, at 99 500 t (219.3 million lb - product weight), contracted slightly more than 2 percent compared to the previous year, due primarily to the 58 percent drop in receipts from India. The nearly 5 900 t (product weight) reduction in receipts from India - due to the continued effects of the block-listing of Indian shrimp products imposed in October 1979 by the US Food and Drug Administration (FDA) - resulted in a 23 percent decline in US imports of raw peeled shrimp; India is the largest foreign supplier of this product. Imports of shell-on product rose over 12 percent. Mexico maintained its position as the leading foreign supplier to the USA with an almost 6 percent increase in shipments last year. Receipts from Ecuador and Venezuela rose 47 and 65 percent, respectively, with heavier shipments of pond-cultured shrimp. Ecuador, at 9 160 t (product weight), became the second-largest foreign supplier to the US market in 1980. Panama, up nearly 13 percent in volume last year, was third. Imports from most major Latin American suppliers were up in volume in 1980 - Brazil, Colombia and Suriname being the notable exceptions, while receipts from most Asian suppliers dropped significantly. Pakistan and Malaysia were the exceptions here. (Through early 1981, shrimp imports into the USA from Bangladesh, Hong Kong, India, Indonesia and Pakistan were automatically detained by FDA without physical sampling and analysis. To be considered for admission, block-listed shrimp from these countries had to be sampled and analysed at the owner's expense.) While US consumption of shrimp products did expand during 1980 from the depressed level of 1979 (the lowest since 1973), this expansion in the face of contracting real disposable income levels and a very high rate of inflation was purchased at the cost of an almost steady decline in shrimp prices during the year. Monthly average wholesale prices fell steadily from the December 1979 level of US$ 5.69/lb[2/] through June, recovered slightly in July and August before resuming their decline into November, when they stood at US$ 4.34. Prices began to strengthen mid-November, but in December still averaged US$ 1.16/lb below the previous year's level. Prices continued to strengthen through February 1981.

Developments in the Japanese shrimp market in 1980 parallelled those in the USA in many ways. A contraction in real disposable income and a comparatively high inflation rate during the year weakened consumer demand, resulting in a significant erosion of prices and a reduction of import demand. High interest rates made it more difficult for importers to finance seafood purchases and stimulated a heavy drawdown on the large stocks available at the beginning of the year. Following the record receipts of 1979, Japanese imports of frozen shrimp fell 10 percent in 1980 to 143 256 t (product weight), as receipts from most

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1/ All US weights are heads-off, unless otherwise noted
2/ For frozen 21-25 count brown shrimp at Chicago

major supplying countries declined. India remained the largest supplier, at 35 249 t, despite a 9 percent drop in the volume of shipments. Volume from Indonesia fell 7 percent to 27 569 t. Receipts from Australia plummetted over 25 percent to slightly more than 8 000 t. China was almost alone among the major supplying countries in recording a 20 percent increase in shipments (to 14 502 t) in 1980. Cold storage holdings were drawn down in lieu of heavier imports. Stocks declined 27 percent from the beginning-of-the-year volume to 18 215 t by the end of December 1980. Wholesale prices, at record-high levels at the beginning of the year, fell sharply after March. By December 1980 they stood at Yen 2 960/kg[1/], 12 percent below the level of the same month a year earlier. Prices were beginning to firm during the opening months of 1981, but by late March were still slightly below the December 1980 level, as yet exhibiting no real strength.

In Europe, France was the largest export market for shrimp and reported a 13 percent increase in import volume in 1980 (to 24 665 t - product weight); the average per unit value of imported shrimp, however, declined 2 percent compared to 1979. UK receipts of shrimps and prawns rose over 21 percent in volume last year (to 15 618 t - product weight), but the total import value increased only 1 percent as average per unit import value of both prawns (tropical shrimp) and northern shrimp dropped significantly. Spain recorded a large increase in both the volume (+27 percent to 10 752 t - product weight) and value (+102 percent) of prawn imports. Danish imports of shrimp almost doubled in quantity (to 19 697 t - product) and rose over 101 percent in value. Italy, the Netherlands, Sweden and the Federal Republic of Germany all reported significant increases in shrimp import volumes and values during 1980; these receipts were largely northern shrimp.

The difficulties confronted by the fishing sector in many shrimp producing/exporting nations during 1980 are highlighted by developments in the US industry last year. While total 1980 landings were up slightly compared to 1979, they were still 15 percent below the 1974-78 annual average. Landings of tropical shrimp in the Gulf and South Atlantic rose 2 400 t (5.3 million lb) in 1980; catches lagged behind 1979 levels through September, as many vessels remained in port during the early months of the year due to low ex-vessel prices, high fuel costs, and low catch rates. Over the past two decades, the number of shrimp vessels in the Gulf increased 56 percent (to 4 585 in 1980), and average vessel size rose 71 percent (to 70 gross short t in 1980). Total shrimp landings in the Gulf declined 11 percent between 1960 and 1980; vessel productivity during this period thus declined steadily. Productivity, as measured by the average catch per vessel gross t per trawl, fell from 503 kg in 1960 to 109 kg (both in live weight) in 1980, a decline of nearly 80 percent. A similar development occurred in the Alaskan and Oregon northern shrimp fishery. Landings in Alaska have declined 60 percent since 1976 to only 23 412 t (51.6 million lb - live weight) in 1980, while those in Oregon have dropped 47 percent since 1977 to 13 580 t (29.9 million lb - live weight); the number and size of shrimp vessels in these fisheries also increased steadily in recent years. But the combination of declining ex-vessel prices and spiralling interest rates and fuel costs - fuel costs as a percentage of vessel operating costs in the shrimp fishery are among the highest in US fisheries - brought problems into sharp focus last year and prompted the US Government to announce in October 1980, a large loan and grant programme to assist the US shrimp industry. Most of this sum will go for low-cost Government loans to vessel owners with government-guaranteed mortgages. Other low-interest loans will be made available to expedite the refitting of vessels for transfer to other fisheries, and for energy or cost-saving equipment. The US shrimp industry has also requested imposition of a 20 percent duty on all imported shrimp to mitigate the adverse impact of import competition. (It appears unlikely, however, that such a duty will in fact materialize.)

The outlook for 1981, however, is decidedly brighter than the previous year. Wholesale prices in Europe and the USA appear to have bottomed out and have been firming during the December 1978-March 1981 period, particularly in the USA. Firmer prices, however, were more a result of the low levels of inventories and reduced supplies than of improved demand.

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1/ For 26-30 count Mexican brown shrimp at the Tokyo Wholesale Market

But imports into the USA and Japan during the first two months of 1981 were up 29 and 20 percent, respectively, compared to January-February 1980 levels. Japanese importers in particular, however, were reportedly regulating purchases very carefully in order to keep inventories at a bare minimum. The recent strength of the US$ and Japanese Yen has been a factor in the improved import demand in these countries. The lifting of some FDA-imposed restrictions on imported shrimp has also helped US imports. If current forecasts for Japanese economic growth during 1981 materialize, and the US economy is able to maintain its recent encouraging performance, the prospects of an upturn in consumer demand and a continuation of current price firming trends for shrimp will improve in these important markets. The continued recovery of prices can be expected to spur the already rapid development of the shrimp culture industry in such countries as Ecuador, Venezuela, Brazil, Costa Rica, Panama and the Philippines.

Frozen Cephalopods

In the Japanese market, the largest for squid, cuttlefish and octopus products, conditions changed markedly during 1980, particularly those for frozen squid and octopus. Squid prices, while fluctuating, remained strong into the opening months of 1980, then declined sharply through the rest of the year. Tokyo wholesale market prices (see Annex Table) averaged 21 percent lower in 1980, partly a product of a very successful year for Japanese squid fishermen - one of the best in some time, and a very heavy build-up of cold storage holdings of frozen squid. Although complete data are not yet available, Japanese landings of squid in 66 major fishing ports in 1980 were about 80 percent above those during the previous year. Frozen inventories, already heavy at the beginning of 1980, due to record imports (155 900 t) in 1979, increased further during the year. At the end of 1980 they stood at 85 800 t, 33 percent higher than the December 1979 level. Consequently, Japanese imports of frozen squid and cuttlefish during 1980 fell 39 percent, to 94 400 t; the import quota was reduced to zero for first half of the fiscal year 1980 (April-September). Receipts from most important supplying countries were down sharply, including Argentina (-78 percent), the Republic of Korea (-44 percent) and New Zealand (-99 percent). Canada, however, increased its shipments to Japan by 19 percent. It should be noted that an additional 32 000 t of frozen squid were received from New Zealand through Japanese/New Zealand joint venture operations; these receipts did not enter as imports. The influx of squid supplies into Japan last year was thus tremendous. Wholesale and retail prices for squid consequently remained depressed through early 1981 as large quantities of fresh squid continued to be landed in Japanese ports, diminishing the demand for frozen squid. The Japanese trade, however, expects some modest recovery later this year as *per caput* consumption (including cuttlefish) - over 2 kg last year - was up significantly, spurred by lower retail prices.

The picture for frozen cuttlefish is less clear as imports of these products are reported together with frozen squid. Supplies apparently declined, however, as frozen inventory levels dropped 39 percent to 14 400 t between December 1979 and December 1980. Tokyo wholesale market prices for frozen cuttlefish averaged 3 percent higher in 1980 than in 1979 (see Annex Table). Prices weakened during the third quarter of the year, but showed renewed strength in later months.

Tokyo wholesale market prices for frozen octopus declined even more than those for frozen squid during 1980. Prices declined steadily after May 1980 and by October were down almost 50 percent from the level of the same month of 1979 (Annex Table). Japanese landings data for octopus are not yet available for 1980, but probably exceeded the 29 000 t of the previous year. Imports of octopus last year were about 1 000 t above the previous year, at 63 500 t. Spain accounted for almost 60 percent of the total despite a moderate decline in volume. Receipts from Thailand also decreased, but those from the Republic of Korea rose. Receipts from Mauritania partially recovered from the very low level of 1979. Frozen inventories of octopus, at 15 300 t at the end of December 1980, were down 7 percent from the level a year previous.

Imports of squid, cuttlefish and octopus into both Spain and Italy increased substantially last year. Import volumes and prices developed as shown below:

| | Spain | | | | Italy | | | |
|---|---|---|---|---|---|---|---|---|
| | Imports | | Average import price | | Imports | | Average import price | |
| | (000 t) | | (US$/t) | | (000 t) | | (US$/t) | |
| | 1979 | 1980 | 1979[a/] | 1980[b/] | 1979 (11 months) | 1980 (11 months) | 1979[c/] (11 months) | 1980[d/] (11 months) |
| Octopus | 3.0 | 2.6 | 1 386 | 1 537 | 6.4 | 10.2 | 1 469 | 2 071 |
| Squid | 12.3 | 15.7 | 2 653 | 2 602 | 20.5 | 20.1 | 1 698 | 1 720 |
| Flying squid | 14.4 | 18.6 | 939 | 755 | - | | - | |
| Cuttlefish | 4.3 | 5.1 | 1 967 | 1 968 | 5.9 | 8.2 | 1 577 | 1 954 |
| Total | 34.0 | 42.0 | | | 32.8 | 38.5 | | |

a/ Figures based on Pts. 67.10 = US$ 1.00 b/ Figures based on Pts. 71.52 = US$ 1.00
c/ Figures based on Lit. 830 = US$ 1.00 d/ Figures based on Lit. 855 = US$ 1.00

Spanish imports of all cephalopods except octopus increased last year, and total cephalopod receipts rose 24 percent. Of the various species, only flying squid prices declined. (Prices for squid actually increased slightly in terms of Spanish pesetas.) As in Japan, octopus prices increased the most. Although Spanish cephalopod landings data for 1980 are not yet available, they are thought to have declined, in light of the increase in imports and the fact that Spanish exports of all cephalopod species dropped substantially. Only exports of octopus, at 31 800 t (-35 percent), and cuttlefish, at 6 500 t (-47 percent), remained large. Spanish interests are reportedly considering the development of aquaculture facilities for raising octopus and cuttlefish.

Italian receipts of cephalopod products rose 17 percent between 1979 and 1980 when comparing the January-November period for both years. Squid imports declined slightly, but those of octopus and cuttlefish rose. Prices for all three species types increased during 1980, but once more the advance in octopus prices outpaced those of the other species. The development of wholesale prices for frozen squid and cuttlefish in Milan may be seen in the Annex Table. These data indicate that prices for frozen squid weakened considerably in early 1981, but frozen cuttlefish prices had recovered from a decline during late 1980.

A large number of developing countries have entered the export market for cephalopods in recent years. Fully 29 developing nations were listed as suppliers to Japan of fresh, chilled and frozen squid and cuttlefish last year. The largest exporters were in Asia - especially the Republic of Korea and Thailand, but they also included countries in the Near East - notably the People's Democratic Republic of Yemen, Africa - especially Morocco and Senegal, and Latin America - Argentina, Cuba, Mexico and others. A total of 15 developing nations were listed as suppliers of octopus in 1980, the largest being the Republic of Korea, Thailand, Morocco, Libya and Mauritania.

Other Frozen Fish and Shellfish

The trade in frozen mackerel apparently expanded during 1980 despite a decline in mackerel supplies. The signs of overfishing in the important Northwest Atlantic fishery which appeared in 1979, materialized during 1980 in the form of reduced landings and export supplies.

Landings in the UK dropped 68 000 t to 296 000 t during 1980 (comparing the January-November period of 1980 and 1979), and Norwegian production declined 38 percent to 77 000 t.

French catches, while much smaller, also fell. Although data are not yet available, landings in the Faroe Islands are also thought to have decreased. Among the other important fishing nations in western Europe, only the Netherlands and Ireland reported increased production, the former up nearly 40 percent to 79 000 t (as of November), and the latter up 100 percent to 50 000 t. Landings of mackerel in Peru, however, fell 53 000 t from the peak-year production of 1979 to 65 000 t last year. Production in southern Africa remained very low.

Substantially heavier landings in Ireland and the Netherlands were not sufficient to offset the sharp drop in production in Norway, the UK and Peru. Consequently, export supplies of mackerel declined last year, most notably from the latter three countries. British mackerel exports fell 7 percent to 264 000 t, but at least 120 000 t of this volume was fresh chilled mackerel, the bulk sold over-the-side to eastern European and (most importantly) USSR processing vessels. The Federal Republic of Germany also made heavy over-the-side sales to these nations - especially Czechoslovakia. Based on available data, it was the trade in fresh chilled mackerel which suffered the consequences of reduced mackerel supplies in 1980. West Africa, particularly Nigeria, was the largest market for frozen mackerel, purchasing fully 66 000 t from the UK; another 24 000 t of fresh chilled mackerel from the UK was destined for Nigeria. The Netherlands and Ireland also exported heavy volumes of mackerel to Nigeria. The Ivory Coast, Liberia and Egypt were the other major markets in Africa for fresh and frozen mackerel. Prices increased last year for most exporters supplying these markets.

In western Europe, utilization of mackerel for canning appeared to increase again last year, in spite of continuing complaints from processors about the difficulty of gaining consumer acceptance of canned mackerel products. Larger volumes of mackerel were imported by the Federal Republic of Germany and the Netherlands, but receipts by France declined significantly (-22 percent) to 10 800 t. Germany recorded a 10 percent increase in imports last year (to 25 500 t), while imports into the Netherlands rose 25 percent to 15 200 t (both as of November). In the former country, canned mackerel products are now estimated to account for about 15 percent of the traditional canned herring market. Peruvian participation in the frozen mackerel trade almost certainly suffered a setback during 1980. Peru made significant progress through 1979 in expanding its sales of frozen mackerel to the European canning industry, especially in the Federal Republic of Germany, but is thought to have recorded reduced volume last year as mackerel landings contracted 45 percent and both production volume and the export sales value of frozen fish declined (-20 and -13 percent, respectively). But Peru may be able to regain lost ground during 1981 if its fleet can land the 350 000 t quota set (at last report) for mackerel this year. Mackerel production in western Europe is expected to decline again in 1981.

Besides frozen mackerel, coming mainly from western Europe, the market in West Africa for frozen 'African diverse' fish has grown to a substantial size in recent years. This fish, which comprises a number of species, including seabreams, sardinella, horse mackerel, barracuda, grouper, certain soles, red mullet, croaker and others, is being supplied by Spain from Las Palmas, USSR vessels fishing off West Africa, Mauritania and Senegal (Senegalese exports were reported to be 30 000 t in 1979). Uruguay and Argentina entered this market in strength during 1980 with heavier shipments, primarily of frozen croaker. Ghana, Liberia, Nigeria and Ivory Coast are the principal markets for African diverse fish. Demand, particularly in the latter two countries, remained bouyant last year. The entry of more exporters into the trade kept retail price increases moderate in spite of the advance of suppliers' prices for nearly all species. While of considerable volume, intra-Africa trade in these fish products has been constrained by the difficulty of transferring payments from one country to another, as well as by the lower (10-20 percent) prices of fish from Las Palmas, Argentina and Uruguay. Prices for Las Palmas fish, however, have been increasing lately due to the exclusion, since February 1981, of Spanish vessels from Moroccan waters.

The trade in frozen pilchard between western Europe - especially the Federal Republic of Germany - and Latin America, like that of frozen mackerel, apparently contracted last year. Frozen pilchard has been gaining acceptance as a substitute for herring to fill raw material requirements in the western European canning industry as catches and supplies of the latter species plummetted. During 1980, however, landings of pilchard in Peru, the principal exporter of this product, dropped 16 percent. The decline in the production and export of frozen fish by Peru has already been noted above. Additionally, export prices for frozen pilchard from Peru rose substantially during the latter half of 1980 (see Annex Table), indicating diminished supplies. The situation was exacerbated by a moderate increase last year in herring supplies. They could very well expand again during 1981, especially if the lack of agreement on an EEC common fishery policy leads to free-for-all fishing.

Herring production increased last year in Norway, Iceland, France and the Federal Republic of Germany. The Netherlands, Denmark, Canada and the UK, all reported slight declines in landings. In aggregate, however, production in these countries increased slightly. The result was a slight decline in Canadian exports of frozen herring to western Europe as processors turned to the preferred European herring. Japanese imports of frozen herring during 1981, however, increased over twofold to 30 100 t, primarily from Canada and the USA.

Supplies in excess of demand affected the market for rainbow trout in both the USA and UK during 1980. Production in the latter country reached 5 000 t last year. Supplies of farm-raised trout in the large Danish industry were plentiful into early 1981, with emphasis moving towards the export of live shipments into the Federal Republic of Germany. The Italian industry, one of the largest in the world with production of about 20 000 t last year, was faced with water shortages due to drought conditions during the first part of 1981. The Norwegian industry, now small, is expected to develop dramatically in future years as rainbow trout gains increasing popularity among consumers. Chile is making plans to move into the production of farm-raised rainbow trout.

Wholesale prices for frozen lobster climbed almost steadily in Tokyo during 1980, but dropped off very sharply in January 1981. Japanese imports of lobster declined over 20 percent last year to 4 600 t. The bulk of receipts in 1980 were from Cuba (50 percent). Imports from other nations declined, particularly those from Australia. In the leading US market, imports of lobster fell 17 percent to 22 900 t. Receipts of frozen warm-water lobster tails and meat suffered most of the decline as imports from all major suppliers of these products, except Mexico, declined. Wholesale prices of frozen warm-water tails were relatively stable, however, eroding only 2 percent between December 1979 and June 1980. They recovered gradually toward the end of the year.

Imports of fresh, chilled and frozen crab products into Japan, by far the largest importer of these products, declined 17 percent last year. The receipts of 33 756 t were nearly all supplied by the USA (80 percent) and the Republic of Korea (12 percent). The remainder was largely from Asian nations, especially China, but also Canada, the USSR, Chile, Namibia and Oceania. Wholesale prices in Tokyo last year remained at high, but gradually declining levels through May, then dropped off sharply before showing some renewed strength in September and October. In the latter month, however, they were still nearly 40 percent above the level of the same month a year earlier. Prospects for a recovery in export sales to Japan may well improve this year due to the exclusion of Japanese vessels from some US Pacific crab stocks for the first time. US imports of crab and crab meat increased 11 percent to 2 100 t during the first 9 months of 1980 as compared to the same period of the previous year. Canada supplied nearly 75 percent of these receipts. Wholesale prices in the USA for Canadian snow crab meat product by November 1980, stood almost 15 percent below the level of the same month the previous year. Good crab landings in the USA during 1980 (138 770 t) resulted in ample supplies.

Canned Fish

Tuna

Following a difficult 1979, 1980 witnessed an improvement in supply and market conditions in the leading canned tuna producing and consuming nations. Heavier tuna landings in the USA, Japan and France eased the tight supply situation of 1979, and was reinforced by an increase in import supplies; the latter element was of particular relevance to the Italian industry.

Canned tuna sales in the USA rose 5 to 6 percent last year, pushing per caput consumption to 1.4 kg. Canned tuna production in the USA (including Puerto Rico and American Samoa) contracted slightly (-1.8 percent) for the second consecutive year to 30.9 million (standard) cases, but imports of canned tuna rose nearly 20 percent to 28 837 t; Japan supplied nearly 40 percent of the total. Canners were blessed with stable domestic raw material prices and rising canned product prices last year. Wholesale prices averaged 17 percent higher in 1980 as compared to 1979, and were still edging up as of early 1981 (see Annex Table). The outlook for the remainder of 1981 is good, if supply problems do not again intervene. Inventories were at manageable levels at the beginning of the year, and price hikes during 1981 for major competing products - chicken and beef - are expected to outpace those for canned tuna. But on the raw material supply side, tuna catches in the Eastern Pacific were down significantly as of early March as a result of reduced fishing effort, due primarily to the inability of US tuna fishermen and canners to agree on ex-vessel price levels. The very large canning complex in Puerto Rico was forced to institute temporary shut-downs due to insufficient raw material supplies. Additionally, imports of tuna and tuna products into the USA from Mexico, Ecuador, Peru and Costa Rica are now embargoed.

Japanese raw material supplies (landings plus imports) contracted during 1980, as did canned tuna export volume, the latter development primarily a result of higher export prices, reflecting increased domestic prices. Total canned tuna exports contracted almost 5 percent (to 33 400 t) as the increase in canned albacore exports failed to compensate for the decline in shipments of canned skipjack. Landings of tuna in Yaizu, the leading Japanese tuna port, were down over 1 000 t during January-February 1981 as compared to the same period last year.

Based on raw material supplies, French canned tuna production apparently rose slightly last year. Moderate increases in both domestic landings and imports of tuna more than compensated for a 24 percent expansion in tuna exports. French imports of canned tuna rose 5 percent to 24 500 t, indicating some growth in canned tuna consumption last year as compared to 1979. Similarly, Italian consumption of canned tuna apparently also rose last year as imports of raw material - which account for almost all supplies to the Italian canning industry - expanded 8 percent to 68 800 t (January-November 1980) and imports of canned tuna increased nearly 20 percent to almost 3 000 t (entire year). In the Federal Republic of Germany, canned tuna consumption appeared to stagnate last year as imports of canned product, accounting for virtually all of supplies, declined slightly to 11 000 t (January-November), a result of price increases. UK canned tuna imports and apparently usage - like the Federal Republic of Germany, the UK market is dependent on imports - increased moderately during 1980 as prices remained competitive despite their higher levels. Sharply rising prices in recent months, however, could very well undermine this uptrend in consumption during 1981.

Many Latin American countries, including Costa Rica, Venezuela, Brazil, Ecuador, Peru and Mexico, as well as developing nations in Africa - notably Ivory Coast and Senegal - and Asia (particularly the Philippines) are pushing ahead with the development of their tuna canning industries. In early 1981, Costa Rica was negotiating a loan for the construction of four large tuna purse seining vessels and a cannery. Peru, in a related development, experienced success with the introduction in the USA and UK markets of chunk-style canned pilchard to compete with canned tuna; the price of this product is about half that of canned tuna. The Ecuadorian industry apparently suffered a setback in 1980 as tuna catches dropped over 35 percent in spite of a 100 percent increase in the average tuna vessel size (the number of vessels was about the same) during the past decade. The Mexican industry also

experienced some difficulty during 1980 as tuna landings rose less than 20 percent despite a more than 50 percent increase in total tuna fleet capacity last year. Many more vessels are on order for delivery during 1981 and substantial expansion of tuna canning capacity is planned in both the public and private sector. In the light of the inaccessibility of the US market (due to the embargo), a major effort is planned to boost domestic consumption of canned tuna, possibly through government subsidization of consumer prices. Canned tuna production in the Philippines has increased substantially in recent years, and in early 1981 a large new cannery was inaugurated in the southern Philippines, which could make that country one of Southeast Asia's largest tuna processors. Papua New Guinea is reportedly negotiating a joint venture with a US tuna company for construction of a tuna cannery and associated fleet.

Pilchard/Sardine

World export supplies of canned pilchard/sardine products during 1980 apparently remained near the 1979 level of 235 000 t, while world export and import prices rose. Japan, the largest exporter of this product, increased its shipments by over 10 percent to 55 500 t. Nearly all this volume was tomato sauce - packed product. The average per-unit export value of Japanese shipments all over the world rose nearly 17 percent to US$ 1.06/kg.[1/] Portuguese exports of canned sardine increased about 8 percent last year above the 1979 level, based on data for the first three quarters of 1980. Spanish export volume, however, dropped nearly 25 percent to 32 000 t. Canadian shipments abroad apparently increased moderately from the nearly 6 000 t level of 1979, in spite of a sharp drop in production. The size of the Canadian sardine/herring fleet has subsequently been frozen at its present level pending an investigation of herring stocks. (Canadian canned sardine producers utilize Atlantic herring as raw material.)

Among the important producing countries in the developing world, Peru suffered a setback in production and exports in 1980 - the second consecutive year of decline. Total Peruvian canned output (about 70 percent of which consists of canned sardines) fell 6 percent to 80 000 t and the total value of canned fish exports also declined compared to 1979. These setbacks were a result of the smaller catches of pilchard as quotas were established in order to conserve pilchard stocks. The catch quota for 1981 is expected to decrease again to 0.5-0.7 million t; it was 1.2 million t last year. But the Government of Peru has now prohibited the use of pilchard for fish meal production (excepting food fish production offal) and banned the licensing of new canneries and cannery expansion. The number of canneries in Peru has increased very rapidly in recent years - to an estimated 70 in 1980 and 100 applications for new or expanded plants were pending as of early 1981. These steps bode well for the future of the canning industry, but 1981 got off to a slow start as the pilchard quota went unfilled in January due to a strike by fishermen at Chimbote, the main Peruvian port. In Chile and Ecuador, concern is also growing over the health of pilchard and Pacific thread herring stock, respectively; the bases of the sardine canning industry in these two countries. Landings of pilchard in Chile and Pacific and thread herring in Ecuador have expanded very substantially in recent years, the vast bulk of which has gone into fish meal production. Both nations, however, are attempting to direct more of their catches into food fish production, and production and exports of canned fish increased during 1980. Chilean production of canned fish (the bulk of which is sardine) rose 43 percent to 40 000 t while exports doubled to 14 800 t. The expansion of Chilean canning capacity continued into 1981. Ecuadorian exports of canned sardine increased to 24 000 t in 1980, up 35 percent from 1978 (1979 are as yet unavailable); most of this product was shipped to Colombia. Export data are as yet unavailable for Morocco, but the volume during 1980 is thought to have declined from the high level of 1979 (40 000 t).

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1/ Figures based on Yen 224 = US$ 1.00

Among the smaller suppliers to the international market, both Italy and the UK reported heavier exports of canned sardines. South Africa and Namibia have almost completely dropped out of the export market, after being the largest exporter of canned pilchard in 1976, due to a very sharp decline of South African pilchard stocks in recent years.

Imports of canned sardine into some of the major market countries - the USA and the UK - increased slightly last year, and consumption apparently improved in both France and the Federal Republic of Germany. Imports into France decreased marginally in 1980, but supplies to the large French canning industry (landings and imported raw material) increased. A similar pattern was observed in the Federal Republic of Germany, where the large canning industry continued to substitute canned pilchard as well as mackerel for the traditional canned herring. The weakness of the mark and franc may constrain German and French import demand somewhat in 1981. Information for some of the large and developing markets - Nigeria, Egypt, Saudi Arabia, United Arab Emirates, Jamaica, Papua New Guinea and Malaysia - are unfortunately not yet available, but the outlook for 1981 appears to be bright, despite declining imports by some traditional market countries such as the Philippines, where the canning industry continued to make progress toward its goal of filling all domestic consumption requirements. Egypt announced its intention to increase total 1981 fish product imports - a large share of which is canned fish - by 50 000 t or by 70 percent. Similarly, Jamaica plans to import over 60 percent more canned fish - mainly sardine and mackerel - during 1981. Jamaica purchased 480 000 cases of canned fish in 1980.

Mackerel

World trade in canned mackerel products climbed higher again in 1980 as Japan, Denmark and Chile all reported substantial increases in their exports. Japan, which accounted for fully 80 percent of world supplies during 1979, registered a 16 percent (to 210 000 t) expansion in canned mackerel exports, as Japanese mackerel landings and the share of total landings utilized by the canning industry both increased. World export/import prices also apparently rose: the average Japanese export value of oil-packed mackerel rose 29 percent to US$ 2.03/kg,[1/] the brine-pack rose 29 percent to US$ 0.92/kg[1/] and the tomato sauce pack increased 22 percent to US$ 1.08/kg.[1/] Danish shipments abroad during 1980 through November were up 24 percent compared to the same period of the previous year; total 1979 exports were 6 800 t. Chilean exports are thought to have increased from the 2 900 t level of 1979 with the 100 percent rise in total canned fish exports last year. In Peru export volume probably declined from the nearly 10 000 t of 1979 due to the problems outlined in the preceding section and the fact of a substantial drop in mackerel landings last year. Portuguese shipments also declined slightly last year based on information available for the first 9 months of 1980.

The heavier shipments by Denmark went to the important consuming nations in western Europe, where canned mackerel may be starting to consolidate its recently gained foothold in the market as a substitute for traditional canned sardine/pilchard and herring products. Imports during 1980 by the UK, the Federal Republic of Germany, the Netherlands, Sweden and Italy (where canned mackerel is a more established product) all increased moderately. These nations also imported canned mackerel products from Latin American countries and Japan, but much of the volume from Latin America and most of the tremendous Japanese export volume last year was destined for the developing nations of Asia (especially Singapore, Sri Lanka, Malaysia and the Philippines), West Africa (Nigeria - presently the largest importer in the world, Ghana and Gabon), the Near East (Saudi Arabia, United Arab Emirates, Libya and Egypt), Latin America (Jamaica, Dominica and Colombia) as well as Papua New Guinea and Fiji. The Philippines, however, has made considerable progress in cutting back its once very large imports through the development of the domestic canning industry.

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1/ Figures based on Yen 224 = US$ 1.00

The outlook for 1981 in most western European market countries, notably the UK and the Federal Republic of Germany, continues to look favourable, but complaints about the difficulty of gaining consumer acceptance of canned mackerel products may still be heard among some processors. The outlook for export sales in key developing nations, such as Jamaica, Egypt, Saudi Arabia and Nigeria, also appears favourable given the import plans for fishery products noted in the preceding section (Jamaica and Egypt), and the ability to finance heavier canned fish imports (Nigeria, United Arab Emirates and Saudi Arabia).

Herring

Western European herring processors enjoyed some improvement in raw material supplies from Denmark, Norway and Iceland during 1980, and by late in the year frozen inventories were high and prices a bit lower. These conditions presented problems for Canadian and US suppliers of frozen herring as European processors consider US- and Canadian-caught herring to be of poorer quality than European-caught herring. High interest rates and unfavourable currency exchange rates were also impairing European purchases of frozen herring from Canada and the USA.

Imports of frozen herring by the processing industry in the Federal Republic of Germany, the largest in Europe and almost completely dependent on imported raw material, declined moderately in value and volume last year. German canners continued to utilize mackerel, pilchard and sprat to supplement herring and fill their yearly requirements of over 200 000 t of raw material. Much of the frozen mackerel and pilchard imported continues to come from Peru. Canned products based on these species are now estimated to command about 15 percent of the traditional canned herring market. Canned mackerel in particular has gained a good share of the market, but canned pilchard products still must be sold at lower prices. Although German import demand for frozen mackerel remained strong through early 1981, indicating that consumer demand for canned mackerel was still bouyant, import demand for frozen pilchard was slack. However, consumer demand for these herring-substitute products may still be vulnerable to a resurgence in consumer preference for the traditional canned herring if herring raw material supplies improve again during 1981, as they very well could. The lack of an EEC common fishery policy and the attendant quotas on herring catches could result in an overfishing of herring this year; EEC countries were still unable to agree on a common fishery policy through April 1981.

Shell Fish

In the USA production of canned shrimp reached near record levels in 1980, while imports were about the same as the previous year. Canned shrimp from Thailand, the largest foreign supplier of this product to the USA in 1980, were block-listed by the US Food and Drug Administration late in the year. Norway's production and exports of canned shrimp expanded last year; shipments abroad were up over 40 percent as per-unit export value rose 10 percent. Both Sweden and the Netherlands reported imports of canned shrimp nearly 10 percent above 1979 levels. Import prices increased during 1980 in the former country, but declined in the latter.

The supply situation for crab meat canners in both the USA and Canada continued to improve through most of 1980. Canadian production thus increased moderately.

Cured Fish

World trade in cured fish products expanded last year, both in volume and value.

Canada's production of salted cod and dried/salted haddock, hake, Atlantic pollack and other fish rose from 36 000 t in 1979 to 48 000 t last year, and export sales grew substantially. Total export volume of these products increased 53 percent to 40 000 t in 1980, while prices averaged 12 percent lower. Three quarters of these exports were made up of salted cod products, the bulk of the remainder being dried pollack (11 percent), hake (8 percent) and haddock (3 percent). Exports of salted cod products expanded 63 percent to

30 000 t, the shipments of green and wet salted cod jumping from a few hundred t in 1979 to nearly 10 000 t in 1980. Portuguese and Spanish purchases in particular, but also French, Greek, Norwegian and US purchases increased. Export sales of heavy salted cod increased moderately, most notably to Spain. Exports of dried hake and Atlantic pollack, mainly to the USA, Puerto Rico and Caribbean countries, also rose moderately.

Production and export sales of cured fish also expanded last year in Denmark, the Faroe Islands, and Iceland. In Iceland over 18 percent of total landings in 1980, up from 11 percent the previous year, were utilized for salted, dried and smoked fish production. Cod was by far the most important species utilized (over 200 000 t in 1980), but haddock, Atlantic pollack (saithe), tusk and herring were also important. Total exports of salted, dried and smoked fish products rose 21 percent to 88 000 t; the total value of these products jumped 68 percent to US$ 218 million. Stockfish alone accounted for over 12 000 t, up almost threefold from the previous year and was nearly all destined for Nigeria, which increased its purchases over sevenfold compared to 1979. Export prices for stockfish to Nigeria and Iceland in 1980 averaged about 80 percent higher than 1979. Heavy and increased purchases by Portugal (+40 percent), Spain (+6 percent), Italy (+17 percent) and the USSR (+24 percent) were also reported, all at substantially higher prices than in 1979. Greece and Sweden were the other major markets for Icelandic cured fish products.

Exports of cured fish by the Faroe Islands recovered during 1980 and were up over 10 percent in volume (to about 18 000 t) and nearly 40 percent in value. Salted fish accounted for most of the volume and value, but exports of salted fillets increased more; shipments of dried and smoked products increased very sharply, but remained small.

Danish exports of these products exhibited similar development, up moderately in volume (+9 percent to 15 900 t) but more in value (+20 percent). Cod products accounted for more than half of cured fish exports by Denmark, but herring and salmon products were also important.

Norway, however, suffered a decline in its exports, which fell 15 percent to 90 000 t. The total value of these shipments, however, rose 22 percent. Exports of dried and salted groundfish products - especially cod, but also saithe, tusk, ling and fillets - accounted for almost all of the total volume. Stockfish exports, nearly all to Nigeria, declined slightly to 15 000 t, but increased 80 percent in total value. Italy accounted for most of the balance of dried groundfish product exports. Klip fish exports totalled 52 000 t last year, and were destined for, most notably, Brazil (16 000 t), but also western Europe (especially France and Italy), Africa, the Caribbean (particularly the Dominican Republic) and other countries in Latin America.

It is quite clear that demand for stockfish in Africa, especially Nigeria, grew last year despite substantial price increases. Demand continued to be good during the opening months of 1981, and further price increases are anticipated. The klip fish market also endured signficant increases in prices last year, but was exhibiting some resistance in early 1981. Production and export volume for salted and dried fish products depends heavily on landings of groundfish, especially cod, in northern Europe and Canada, and on the fresh/frozen market for groundfish products. In 1980 aggregate landings of groundfish in the key salted/dried fish producing countries - Denmark, Iceland, Norway, Canada and the Faroe Islands - increased slightly and the market for fresh and frozen groundfish products was weak. These factors, combined with favourable market conditions for salted and dried products, resulted in an increase in cured fish production and exports. The picture for 1981, however, is less than clear. Groundfish landings in Canada will probably rise this year, but those in Norway should decline again. The picture in Iceland is unclear, as it is in the Faroe Islands and Denmark, due to the lack of agreement among EEC countries on a common fishery policy and quotas. The fresh/frozen groundfish market shows some recovery, but this is still very much tentative. The price rises and recent resistance in some market countries for traditional salted fish products from Canada and northern Europe may very well benefit the sales and consumption of substitute products, such as cured shark and hake.

In Sri Lanka, a Norwegian bilateral aid programme of recent years aimed at introducing fish protein concentrate type B, a powdered product and substitute for a previously imported product, bore fruit. Sri Lanka announced the intention last year of establishing domestic production potential based on local species, due to popularity of this product as a condiment among Sri Lankan consumers.

Fish Meal

Information available as of April 1981 indicates that world production of fish meal during 1980 declined over 200 000 t from that of the previous year to 4.6 million t. Output in most of the major producing/exporting nations contracted, as shown in Table 6.

Table 6

Fish meal - world production and export volume
('000 t)

| | Production | | Exports | |
|---|---|---|---|---|
| | 1979 | 1980 | 1979 | 1980 |
| World total | 4 584 | 4 390 | 2 206 | ... |
| Major producing/exporting nations: | 2 204 | 1 995 | 1 969 | 1 780 |
| Denmark | 299 | 336 | 258 | 399 |
| Iceland | 216 | 178 | 204 | 173 |
| Norway | 328 | 292 | 329 | 269 |
| Peru | 605 | 416 | 657 | 415 |
| Chile[a/] | 441 | 487 | 388 | 502 |
| South Africa and Namibia | 170 | 147 | 26 | 15 |
| Thailand | 145 | 139 | 107 | ... |
| Other countries | 2 380 | 2 395 | 237 | ... |

Source: Oil World Weekly; Fish Meal Exports Organization; OECD
a/ Excludes miscellaneous meals (about 45 000 t annually, virtually all consumed domestically

Output in Peru alone dropped nearly 200 000 t (-31 percent), and production levels in Iceland (-18 percent), Norway (-11 percent), South Africa and Namibia (-14 percent), and Thailand (-4 percent) all recorded declines. Among the seven major producing/exporting nations shown in Table 6, only Denmark and Chile showed increased output during 1980, up 12 and 10 percent, respectively.

At 805 000 t, up marginally from 1979, Japan remained the largest producer of fish meal in the world, followed by the USSR at 512 000 t (up 4 percent from 1979). Production in the USA declined 3 percent during 1980 to 322 000 t, due to reduced catches of menhaden last year, following the bumper harvests of 1978 and 1979.

World export supplies contracted commensurately with the decline in production in the major producing/exporting nations; these countries account for about 90 percent of fish meal entering the international market. As with production, export volume fell during 1980 in all the countries shown in Table 6, except Denmark and Chile (data for Thailand were not yet available). The sharpest decline - 242 000 t, or 37 percent - was registered in Peru. Domestic usage of meal by most of the main exporting nations increased, excepting Peru, South Africa and Namibia. This factor and the concomitant drop in production resulted in a heavy drawdown on stocks. Total fish meal stocks in Peru, Chile, South Africa and Namibia,

Norway and Iceland were about 100 000 t (-29 percent) lower at the end of 1980 as compared to 1979. The USA was a major exporter during 1980 as export volume, at 77 000 t, was up over fivefold compared to 1979, a reflection of the sizeable differential between US and European fish meal prices that persisted through most of the year. Ecuadorian fish meal exports, at 80 000 t, increased nearly 10 percent last year.

The contraction of production, export supplies and stocks combined to force up fish meal prices during 1980. Prices in Europe (Hamburg) jumped sharply higher as the year commenced, moderated mid-year, then resumed their climb during the closing months of the year. On average, fish meal prices in Europe were up 28 percent in 1980 as compared to 1979 (see Annex Table). Prices in the USA were lower than in western Europe and relatively stable during late 1979 and early 1980; they edged upward and then weakened in the first and second quarters of the year, before strengthening during the third and final quarters, bringing US prices more in line with those in western Europe by October. By December 1980, US prices for menhaden meal reached heights of nearly US$ 500/short t, about US$ 100 above the level of December 1979.

Higher prices and lower export supplies resulted in a slight decline in the volume of world trade in fish meal during 1980. Trade value, however, rose to over US$ 1 billion. Imports into developed countries as a group reached about the same tonnage as in 1979, but Japan reported a 36 percent expansion (to 139 000 t). Both Swedish and German imports registered increases of 13 percent over 1979 levels, to 113 000 and 319 000 t, respectively. Foreign purchases by the UK and the USA fell 12 percent (to 226 000 t) and 44 percent (45 000 t), respectively. Developing countries as a group recorded a moderate decline in import volume during 1980.

World fish meal production during 1981 will probably fall short of the 1980 level. Excepting Peru, no marked change in output in the principal producing/exporting nations is foreseen this year, but developments in Peruvian, Ecuadorian and Chilean production policy (food fish versus fish meal production) and conservation measures will bear close attention and reinforce a general atmosphere of uncertainty. Uncertainty has been the operative word in the international market during the opening months of 1981, with high and fluctuating interest rates and US dollars parities vis-à-vis many currencies (and the associated foreign exchange problems), the prospect of a decline in world soybean meal output during 1981, as well as the continuing inflation and recession, all playing a role. This uncertainty, combined with the likelihood of contracting world fish meal production, the reduced level of stocks in the main exporting countries, the rising level of domestic usage of meal in most of these countries in the face of little or no growth in output, all point to reduced export supplies and higher prices for fish meal in 1981. During the first two months of the year, aggregate fish meal production in Chile, Iceland, Norway, Peru and South Africa as compared to the January-February 1980 level was up slightly (+1 percent), but total exports by these countries were down 26 percent in volume. Production was down significantly in Chile (-44 percent) and Iceland (-54 percent), but heavier in the other countries, particularly Peru (+66 percent). In Peru, however, lower quotas for anchovy catches and severe limitations on the production of fish meal from pilchard could result in a more than 50 percent drop in fish meal output in 1981. Export volume by all these countries during January-February 1981 as compared to the same period the previous year was either little changed (Chile) or down significantly (Iceland, Norway, Peru and South Africa) as low stocks were rebuilt. Prices for 64-65 percent protein meal C & F Hamburg edged downward to US$ 515/t as of mid-March, about US$ 50/t less than the high level of November 1980, but were still almost US$ 40/t higher than prices of the same month last year. In the USA prices for menhaden meal had retreated to about US$ 400/short t by March 1981. Prices are expected to be unstable, but generally stronger through the remainder of 1981.

## Fish Oil

World production of fish oil decreased 10 percent during 1980 to 1.1 million t, after three consecutive years of growth. Most of the major producing countries recorded diminished production. Output in both Peru and Chile declined, with Peru alone reporting a 55 percent

drop (to 60 000 t). Chilean production, although declining 13 percent to 95 000 t, surpassed that of Peru for the first time. The three principal producing countries of western Europe - Norway, Denmark and Iceland - all recorded reduced output during 1980. Norwegian production contracted 5 percent to 180 000 t, while Iceland and Denmark weighed in with 80 000 t each, an 11 percent decline for the former and 5 percent decrease for the latter. In spite of an 18 percent drop in output, Japan remained the world's largest producer, at 260 000 t. Among the major producing nations, only the USA, South Africa and Namibia showed an increase in output last year, to 141 000 t (+17 percent) and 50 000 t (+4 percent), respectively.

Preliminary information indicates that world export volume in 1980 recorded a proportionally smaller decrease than production. Heavy stocks were available for carryover into 1980, and both the USA, at 129 000 t, and Denmark, at 97 000 t, reported sharply higher exports during 1980. Japanese and Icelandic exports, while down from 1979 levels at 160 000 t and 87 000 t, respectively, did not contract as sharply as production. Peru, however, apparently exported little or no fish oil during 1980 as large exports during 1979 caused a reduction in carryover stocks which, coupled with reduced output, necessitated heavy (in excess of 60 000 t) imports to cover domestic requirements. Retail prices for blends of fish oil with soybean and other vegetable oils are fixed by the Peruvian Government at lower levels than prevail for pure vegetable oils, thus favouring fish oil consumption at the expense of pure vegetable oils.

Fish oil prices in Europe - by far the leading market for fish oil - advanced strongly during the first quarter of 1980, but subsided in following months through October. A recovery in prices were witnessed during the closing months of the year, and by December they were again slightly above the US$ 448/t level of December 1979. Prices remained strong through January 1981, but weakened again during the remainder of the first quarter. By March 1981, fish oil prices stood at US$ 420/t in north western Europe, about 20 percent less than soybean oil prices. Fish oil prices in the USA averaged US$ 19/lb, 3 percent below the 1979 average.

No significant change in world production of fish oil is anticipated in 1981 as compared to 1980. Stagnating production, however, combined with the fact of reduced carryover stocks at the beginning of the year and the prospect of a reduction in soybean oil supplies point to slightly lower fish oil export volume during 1981 and strengthening prices during the latter half of the year.

GENERAL OUTLOOK

The level of world catches in 1981 is not expected to change materially from that of 1980, despite a continuation in the upward trend of global fishing effort and the growing emphasis on aquaculture production. The primary reasons are:

(1) The fact that a significant number of important fish stocks have either not yet recovered to their full productive potential despite the imposition of conservation measures, or show signs of overfishing. These include among others, Atlantic herring, capelin, mackerel and groundfish in the North Atlantic, pilchard, hake and mackerel off southern Africa, anchovy, pilchard and Pacific thread herring along the west coast of South America, yellowfin tuna in the Eastern Pacific and Eastern Atlantic, and certain shrimp stocks in the Gulf of Mexico and the North Pacific. The quotas and other restrictions imposed on many of these stocks, or simply the reduced catches associated with declining stock size, will constrain production this year.

(2) The growing restrictions, prohibitions and costs (such as licensing fees) being imposed on foreign vessels fishing in the EEZs of other countries, a product of the increasing awareness in resource-rich nations of the value of their fish resources. This awareness, coupled with the lack of growth or decline in catches of a number of key species in recent years, and the very real existence of a large and mobile surplus of fish catching power, has effectively politicized and thereby complicated the process of negotiating fishing access for foreign vessels in the EEZs of coastal nations.

(3) The inability of EEC nations to agree on a common fishery policy - disagreement rooted in the problems caused by spiralling fuel costs and excess fleet capacity - which has prevented the finalization of catch quotas for EEC vessels both within EEC waters and in the EEZs of other nations, such as Canada. This problem has engendered a pervasive atmosphere of uncertainty in the European industry, complicated forward planning and raised costs.

The impact of these factors has been felt especially in developing nations. Total production by developed countries as a group will probably decline slightly again this year, continuing the down trend in landings by these nations which began in 1977. Heavier landings are foreseen in Canada, the USA, New Zealand and Australia, will not be sufficient to compensate for expected declines in a number of western European countries, notably Norway, the UK and the Federal Republic of Germany. Landings in the USSR and Japan should not change significantly in 1980.

Although certain developing countries - particularly Peru, Thailand and the Republic of Korea, but possibly Chile and Ecuador - will also feel the impact of the factors constraining production mentioned previously (i.e. (1) and (2)), developing nations as a group appear to offer the best hope for any expansion of world catches in 1981. Mexico, Uruguay, Nigeria, Ghana and Burma, among others, will add significant catch capacity to their national fishing fleets this year. It is unclear, however, whether the additional production will compensate for expected declines in Peru, possibly Argentina (because of severe financial problems in the industry), Norway and other developed and developing nations.

The continuing production problems on many of the world's traditional fishing grounds, the existence of excess fleet capacity and the growing difficulties of gaining access to lucrative fishing grounds in non-national waters will probably accelerate the movement toward joint-venture arrangements. As of 1980 about 500 joint ventures were active and further activity in cooperative arrangements is foreseen in 1981, particularly in the Indian Ocean and Western Pacific. The increasing value of traditional species due to their growing relative scarcity will also reinforce the emphasis on their utilization for food fish, especially value-added products, and provide additional impetus to the development of food products utilizing non-traditional species. These same forces are expected to spur further interest in and the development of aquaculture output - of shrimp, rainbow trout, salmon and molluscs, among others. The contribution of aquaculture to world seafood production will thus continue to increase.

Aided by the contraction of domestic production in a number of important consuming nations, the expansion of the volume and especially the value of world trade in fishery products is expected to be greater during 1981 than in 1980. Some recovery in the two leading import markets - Japan and the USA is foreseen due to improving economic conditions, aided by the recent strength of the yen and the dollar. This, combined with the growing import needs of many western European nations (because of declining domestic production and increasing demand) should alone be sufficient to boost world trade levels this year. Also, the growing import needs of a number of large importing nations among developing countries, especially in Africa and the Near East, are expected to further boost world trade in fishery products during 1981.

Price increases for fishery products this year should outpace those of 1980, and recover somewhat for selected high-value species such as shrimp and lobster. Although demand in many important markets is still basically weak, some signs of recovery may be seen and is expected to strengthen enough in the coming months to support moderate price increases. This will serve to increase world trade values and relieve some of the pressure on fishermen and processors caught last year in the squeeze between rising costs - fuel, interest rates, transport - and stagnant or declining product prices.

Powerful forces are still working against an improvement in industry conditions this year, however. One is the still tentative nature of economic and demand recovery. Additionally, fuel prices and interest rates are still very high, but fortunately show signs of moderating. Fuel prices should at least stabilize during the remainder of this year, and interest rates should decline; they have already done so in some countries. But the wide and unpredictable fluctuation of exchange rates is serving to heighten uncertainty among traders, and this element in combination with the high level of interest charges continues to make mid-term planning difficult, keep product orders small and constrain any rebuilding of inventories.

Developments during the past year have brought into sharp focus the difficult adjustments in the world's fish catching and marketing structure required as a result of the new regime of the sea, ushered in with the establishment of 200-mi EEZs by most coastal nations. Unfortunately, the dismantling of the old structure, built up over the past half-century, loosed forces inimical to the interests of fish exporting nations, particularly in the developing world. The difficult process of redeployment of fishing effort called for by the redistribution of resources, compounded by unfavourable market conditions, has - especially in western Europe - resulted in the establishment and expansion (or strong demands for such) of government aid and subsidies to domestic fishing interests; it has also spurred the movement toward protectionism - manifest in higher reference prices (EEC), tariffs, import quotas, and the sometimes arbitrary use of non-tariff barriers such as health requirements - in a number of important developed market countries.

FAO is assisting developing nations in their efforts to overcome these trade impediments through its marketing assistance services. The "Market Information Service for Fish Products in the Latin American Region (INFOPESCA)", headquartered in Panama, has been operating successfully since 1977. Similarly, "The Market Information and Advisory Service for Fish Products in the Asian/Pacific Region (INFOFISH)", with headquarters in Kuala Lumpur, Malaysia, began operations during 1981.

Annex Table

WHOLESALE PRICES FOR SELECTED FISHERY PRODUCTS IN MAJOR MARKET COUNTRIES

| Countries/Products | Monthly Average Prices 1979/80/81 | | | | | Annual Average Prices | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Year | January | April | July | October | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | Change 79/80 % |
| USA (US$/t) | | | | | | | | | | | | |
| Frozen fish blocks, cod[a/] | 1979 | 2 204 | 2 427 | 2 347 | 2 345 | 1 272 | 1 651 | 2 156 | 2 204 | 2 290 | 2 314 | + 1 |
| | 1980 | 2 314 | 2 314 | 2 314 | 2 314 | | | | | | | |
| | 1981 | 2 468 | - | - | - | | | | | | | |
| Frozen fish blocks, pollack[a/] | 1979 | 1 585 | 1 609 | 1 620 | 1 618 | 815 | 1 018 | 1 331 | 1 545 | 1 605 | 1 525 | - 5 |
| | 1980 | 1 538 | 1 521 | 1 521 | 1 521 | | | | | | | |
| | 1981 | 1 736 | - | - | - | | | | | | | |
| Frozen fish blocks, whiting[a/] | 1979 | 1 340 | 1 433 | 1 477 | 1 516 | 820 | 934 | 1 199 | 1 318 | 1 481 | 1 725 | +16 |
| | 1980 | 1 679 | 1 719 | 1 794 | 1 706 | | | | | | | |
| | 1981 | 1 879 | - | - | - | | | | | | | |
| Frozen fish blocks, Alaska pollack[a/] | 1979 | 1 508 | 1 532 | 1 521 | 1 519 | 747 | 948 | 1 338 | 1 512 | 1 516 | 1 491 | - 2 |
| | 1980 | 1 477 | 1 466 | 1 499 | 1 521 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Warm-water lobster tails[b/] (6-8 oz) | 1979 | 16 266 | 16 398 | 15 979 | 15 935 | 10 182 | 12 972 | 12 851 | 14 568 | 16 133 | 15 766 | - 2 |
| | 1980 | 15 891 | 15 670 | 15 737 | ... | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Shrimp (31-40 raw headless)[b/] | 1979 | 8 926 | 10 513 | 11 020 | 10 579 | 5 223 | 7 108 | 6 447 | 6 899 | 10 425 | 8 816 | -15 |
| | 1980 | 10 182 | 8 662 | 8 397 | 8 023 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Canned tuna (US$/case)[c/] | 1979 | 36.00 | 36.25 | 38.00 | 40.00 | 24.85 | 27.62 | 31.75 | 34.78 | 37.92 | 44.55 | +17 |
| light chunk in oil (48 x 6.5 oz) | 1980 | 41.33 | 43.38 | 45.75 | 47.75 | | | | | | | |
| | 1981 | 50.00 | - | - | - | | | | | | | |
| GERMANY, FED.REP. (US$/t) | | | | | | | | | | | | |
| Frozen fish blocks, pilchard[d/] | 1979 | 700 | 730 | 730 | 725 | ... | ... | ... | ... | 721 | 683 | - 5 |
| Flaps, 8-12/kg | 1980 | 810 | 450 | 735 | 735 | | | | | | | |
| | 1981 | 700 | - | - | - | | | | | | | |
| Fish meal, 64-65 % protein[e/] | 1979 | 381 | 366 | 415 | 394 | 245 | 376 | 454 | 410 | 395 | 504 | +28 |
| | 1980 | 475 | 470 | 479 | 512 | | | | | | | |
| | 1981 | 541 | - | - | - | | | | | | | |
| Fish oil, crude, any origin[f/] | 1979 | 419 | 484 | 436 | 444 | 344 | 373 | 472 | 452 | 450 | 439 | - 2 |
| | 1980 | 450 | 458 | 440 | 408 | | | | | | | |
| | 1981 | 463 | - | - | - | | | | | | | |
| ITALY - Milan ('000 Lit./t) | | | | | | | | | | | | |
| Frozen shark-porbeagle | 1979 | 3 413 | 3 825 | 3 550 | 3 425 | 1 662 | 2 462 | 2 671 | 3 800 | 3 553 | 4 260 | +20 |
| | 1980 | 3 868 | 3 840 | 4 150 | 5 180 | | | | | | | |
| | 1981 | 5 250 | - | - | - | | | | | | | |
| Frozen cuttlefish | 1979 | 2 550 | 2 750 | 2 875 | NQ | 853 | 1 511 | 1 981 | 2 141 | 2 725 | 2 706 | - 1 |
| | 1980 | 3 040 | 2 340 | 3 020 | 2 425 | | | | | | | |
| | 1981 | 2 800 | - | - | - | | | | | | | |
| Frozen squid | 1979 | 3 100 | 3 100 | 3 050 | 3 000 | 1 186 | 2 001 | 2 465 | 2 865 | 3 063 | 3 532 | +15 |
| | 1980 | 3 043 | 3 575 | 3 530 | 3 980 | | | | | | | |
| | 1981 | 3 050 | - | - | - | | | | | | | |
| Canned chub mackerel, natural | 1979 | 470 | 495 | 495 | 495 | 307 | 323 | 419 | 472 | 489 | 621 | +27 |
| (Lit./400 g can) | 1980 | 575 | 645 | 630 | 635 | | | | | | | |
| | 1981 | 675 | - | - | - | | | | | | | |
| Canned sardine, domestic, in olive | 1979 | 310 | 330 | 305 | 340 | - | - | - | - | 321 | 403 | +26 |
| oil, 125 g can | 1980 | 365 | 415 | 415 | 415 | | | | | | | |
| (Lit./can) | 1981 | 415 | - | - | - | | | | | | | |
| Salted anchovy, domestic | 1979 | 2 700 | 2 875 | 2 575 | 2 850 | 1 449 | 1 743 | 2 700 | 2 791 | 2 750 | 2 485 | -10 |
| | 1980 | 2 150 | 2 150 | 2 390 | 3 250 | | | | | | | |
| | 1981 | 3 675 | - | - | - | | | | | | | |
| Stock fish | 1979 | 4 900 | 5 000 | NQ | NQ | 3 750 | 4 146 | 5 100 | 4 900 | 4 950 | 6 550 | +32 |
| | 1980 | 6 550 | 6 550 | NQ | NQ | | | | | | | |
| | 1981 | NQ | - | - | - | | | | | | | |
| JAPAN ('000 Yen/t)[g/] | | | | | | | | | | | | |
| Bigeye tuna, frozen | 1979 | 962 | 1 017 | 1 117 | 1 225 | 716 | 814 | 925 | 792 | 1 097 | 1 042 | - 5 |
| | 1980 | 1 242 | 1 004 | 998 | 926 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Octopus, frozen | 1979 | 508 | 658 | 706 | 1 193 | 480 | 502 | 501 | 466 | 816 | 902 | +11 |
| | 1980 | 1 122 | 1 062 | 780 | 634 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Yellowfin tuna, frozen | 1979 | 671 | 668 | 839 | 927 | 614 | 612 | 687 | 537 | 778 | 708 | - 9 |
| | 1980 | 860 | 741 | 676 | 635 | | | | | | | |
| | 1981 | 601 | - | - | - | | | | | | | |
| Shrimp, frozen Mexican | 1979 | 2 100 | 3 100 | 3 225 | 3 275 | 2 580 | 3 023 | 2 800 | 2 050 | 2 925 | 2 903 | - 1 |
| browns (31-40, raw headless) | 1980 | 3 240 | 2 790 | 2 680 | ... | | | | | | | |
| | 1981 | 2 552[h/] | - | - | - | | | | | | | |
| Squid (common), frozen | 1979 | 537 | 616 | 563 | 534 | 410 | 477 | 562 | 559 | 573 | 450 | -21 |
| | 1980 | 562 | 460 | 399 | 360 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |
| Cuttlefish, frozen | 1979 | 839 | 938 | 1 056 | 1 097 | 898 | 948 | 895 | 706 | 988 | 1 019 | + 3 |
| | 1980 | 1 000 | 1 064 | 942 | 1 022 | | | | | | | |
| | 1981 | ... | - | - | - | | | | | | | |

a/ Prices paid processors at Boston, Gloucester and New Bedford
b/ Wholesale price at New York
c/ Advertised labels, FOB Canner's Terminal, Terminal Island, California
d/ C + F Federal Republic of Germany, origin - Peru
e/ C + F Hamburg, any origin
f/ C + F Northwestern Europe, any origin
g/ Tokyo wholesale market prices
h/ Price, February 1981